DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

For the Fiscal Year from April 1, 1920, to March 31, 1921

Submitted in accordance with the provisions of the Revised Statutes of Canada, 1916; Chapter 35, Section 33

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1921

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DEPARTMENT OF RAILWAYS AND CANALS

ANNUAL REPORT

For the Fiscal Year from April 1, 1930,

to March 31, 1931

To His Excellency Lord Byng of Vimy, G.C.B., G.C.M.G., M.V.O., Governor General and Commander in Chief of the Dominion of Canada

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the fiscal year ending March 31, 1921.

J. D. REID,
Minister of Railways and Canals.

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REPORT

OF THE

DEPUTY MINISTER OF RAILWAYS AND CANALS

FOR THE YEAR ENDING MARCH 31, 1921

To the Honourable J. D. REID,
Minister of Railways and Canals.

SIR,—I have the honour to submit herewith the annual report of the Department of Railways and Canals. That portion of the report which deals with railways covers, in the case of the Canadian Northern and Grand Trunk Pacific, the calendar year ending December 31, 1920. The report of what are known as Canadian Government Railways (the Intercolonial, Transcontinental and branch lines) is for the nine months ending December 31, 1920. Heretofore, the Government railway year has been the usual departmental fiscal year ending March 31, but for uniformity of accounting and reporting a change has been made to the calendar year which is now the fiscal year of most railway companies. But while the actual report of the Canadian Government Railways (which should not be confused with the Canadian National Railways of which they form a part) covers a period of nine months only, the figures used for purposes of comparison are those relating to the twelve months of the calendar year.

The reports with respect to the canals of the Dominion, as well as the Departmental Accountant and the Commissioner of Highways, are for the federal fiscal year ending March 31, 1921.

As the report contains separate and complete statements concerning the operation of the Canadian Northern and Canadian Government Railways, which together form the Canadian National system, as well as a separate report on the operation of the Grand Trunk Pacific, which is being operated by the Canadian National management for the Minister of Railways, as receiver (but does not as yet form part of the Canadian National system), it will be of interest to present in this summary a combined statement as to the operation of the three systems in simple and easily comprehended form.

MILEAGE OPERATED

The total mileage operated by the Canadian National management in 1920 was 17,337.42, made up as follows:—

Canadian Northern Railway System		9,868·90	miles
Canadian Government Railways—			
Intercolonial Railway	1,670·58		
Prince Edward Island Railway	275·99		
Branch lines	275·22		
		2,221·79	"
Quebec and Saguenay Railway		92·71	"
St. John and Quebec Railway (leased)		172·71	"
Transcontinental Railway (including Lake Superior Branch)		2,006·58	"
Grand Trunk Pacific Railway		2,732·42	"
Hudson Bay Railway		243·	"
		17,337·47	"

During the year, the following mileage was added by purchase by the Government of Canada:—

Lotbinière and Megantic, placed in operation April 1, 1920..	29·59 miles
Caraquet and Gulf Shore Railway, placed in operation June 1, 1920..	80·01 "
Cape Breton Railway, placed in operation July 1, 1920..	30·64 "
Total mileage added by purchase during 1920..	140·24 "

Earnings, Expenditure and Deficit

The combined revenue of all roads operated by Canadian National management during 1920 (including Grand Trunk Pacific) was $125,141,752.31, as against $105,036,176.37 in 1919. The operating expenses, however, increased from $125,349,797.02 in 1919 to $162,484,722.48 in 1920. Thus the operating deficit increased from $20,313,620.65 in 1919 to $36,842,970.17 in 1920. To this operating deficit must be added interest charges which could not be met out of operation, but had to be paid. These fixed charges made the total deficit for 1920 $70,495,702.45, as compared with $49,004,545.46 in 1919. How these bulk figures are allocated is shown by the following statement:—

GROSS EARNINGS

	1920	1919
Canadian Northern System..	$66,695,398.80	$53,562,177.57
Canadian Government..	44,537,803.85	40,179,380.93
Grand Trunk Pacific..	14,408,549.66	11,294,617.87
	$125,141,752.31	$105,036,176.37

OPERATING EXPENSES

Canadian Northern System..	$82,953,978.60	$60,034,023.92
Canadian Government..	54,987,680.28	47,728,205.73
Grand Trunk Pacific..	24,543,063.60	17,587,567.37
	$162,484,722.48	$125,349,797.02

OPERATING DEFICIT

Canadian Northern System..	$16,258,579.80	$6,471,846.35
Canadian Government..	10,449,876.43	7,548,824.80
Grand Trunk Pacific..	10,134,513.94	6,292,949.50
	$36,842,970.17	$20,313,620.65

FIXED CHARGES

Canadian Northern—		
Due public..	$13,933,695.36	$13,030,336.68
Interest due Government..	10,326,260.69	6,939,373.68
Grand Trunk Pacific—		
Due public..	6,048,950.60	6,048,950.00
Interest due Government..	2,475,474.00	2,460,088.40
Interest on Receiver's certificates for 1920	808,351.63	212,176.05
	$33,652,732.28	$28,690,925.41

TOTAL DEFICIT

(Operating and Fixed Charges)

Canadian Northern System..	$40,578,535.85	$26,441,556.71
Canadian Government..	10,449,876.43	7,548,824.80
Grand Trunk Pacific..	19,467,290.17	15,014,163.95
	$70,495,702.45	$49,004,545.46

Deficit of Individual Lines

The total operating deficit of $36,842,970.17 for the twelve months' period was made up as follows:—

Canadian Northern Railway		$16,258,579.80
Canadian Goverment Railways—		
Intercolonial Railway	$6,549,629.48	
Prince Edward Island Railway	729,772.16	
Transcontinental	2,780,359.46	
Moncton and Buctouche Railway	43,800.68	
Elgin and Havelock Railway	47,518.25	
St. Martin's Railway	60,305.39	
York and Carleton Railway	21,317.39	
Salisbury and Albert	88,033.60	
Lotbinière and Mégantic	20,413.49	
Caraquet and Gulf Shore Railway	29,329.87	
Cape Breton Railway	14,621.65	
Quebec and Saguenay Railway	13,189.84	
Hudson Bay Railway	51,585.17	
		10,449,876.43
Grand Trunk Pacific Railway		10,134,513.94
Total operating deficit		$36,842,970.17

Operating Results Canadian National System

(Not including G.T.P.)

Although there was an increase of 445,234 in the number of passengers carried, the average haul per passenger decreased from 71.24 to 59.51 miles, and the receipts from passenger service were $21,092,253.10, or $745,491.37 less than the previous year, when there was a considerable movement of troops returning from overseas.

The increase in revenue was $17,491,644.15, which was largely made up of increased freight earnings, which in themselves amounted to $17,038,569.05, an increase of 26.98 per cent. The system handled 12,859,955 tons of freight, an increase of 1,660,530 over 1919, or 14.83 per cent. There was a slight decrease in the average haul per ton, which was 292.64 miles, as compared with 295.45 the previous year.

The following is a comparative summary of the operating results of the Canadian National system for the twelve months' period ending December 31, 1920:—

——	1920	1919	Increase	Increase
				%
Operating Revenue—				
Canadian Northern Railway	66,695,398 80	53,562,177 57	13,133,221 23	24·52
Canadian Government Railways	44,537,803 85	40,179,380 93	4,358,422 92	10·84
Canadian National Railways	111,233,202 65	93,741,558 50	17,491,644 15	18·66
Distribution—				
Passenger	21,092,253 10	21,837,744 47	−745,491 37	−3·41
Freight	80,193,342 44	63,154,773 39	17,038,569 05	26·98
Other	9,947,607 11	8,749,040 64	1,198,566 47	13·70
Operating expenses—				
Canadian Northern Railway	82,953,978 60	60,034,023 92	22,919,954 68	38·18
Canadian Government Railways	54,987,680 28	47,728,205 73	7,259,474 55	11·86
Canadian National Railways	137,941,658 88	107,762,229 65	30,179,429 23	28·00

OPERATING RESULTS, CANADIAN NATIONAL SYSTEM—*Concluded.*

——	1920	1919	Increase	Increase
Distribution—				
Maintenance of Way and Structures	34,759,329 17	28,476,450 66	6,282,878 51	22·06
Maintenance of Equipment	27,963,511 21	19,950,409 17	8,013,102 04	40·15
Traffic	2,140,576,09	1,478,372 41	662,203 68	44·79
Transportation—Rail	68,146,727 31	52,914,891 80	15,231,835 51	28·78
Transportation—Water	348,553 63	782,316 69	−433,763 06	−55·45
Miscellaneous	2,320,234 54	1,877,168 08	443,066 46	23·60
General	2,965,769 87	2,282,620 84	683,149 03	29·92
Trans. of Cap. Acct. Material (Cr.)	703,042 94	.....	703,042 94	
Operating Ratios—				
Canadian Northern Railway	124·38	112·08	12·30	10·97
Canadian Government Railways	123·46	118·79	4·67	3·93
Canadian National Railways	124·01	114·96	9·05	7·87
Operating Deficit—				
Canadian Northern Railway	16,258,579 80	6,471,846 35	9,786,733 45	151·22
Canadian Government Railways	10,449,876 43	7,548,824 80	2,901,051 63	38·43
Canadian National Railways	26,708,456 23	14,020,671 15	12,687,785 08	90·49
Average Mileage Operated—				
Steam	13,854·9	13,602·5	252·4	1·86
Electric	126·2	126·2		
Total	13,981·1	13,728·7	252·4	1·84
Revenue Train Miles	33,127,889	29,633,398	3,494,491	11·79
Earnings per R.T.M	3·30	3·09	0·21	6·79
Expenses per R.T.M	4·11	3·57	0·54	15·13
Net Earnings per R.T.M (Water Lines Excluded)	0·81	0·48	−0·33	−68·75
Operating Deficit	26,708,456 23	14.020,671 15	12,687,785 08	90·49
Canadian Government Rentals	567,240 00	697,344 22	−130,104 22	−18·66
Miscellaneous Income (Credit)	1,585,061 68	1,255,143 15	329,918 53	26·28
Deficit—St. John and Quebec	346,015 49	187,269 97	158,745 50	84·77
Net Deficit, excluding Canadian Northern fixed charges and Miscellaneous income	26,036,650 04	13,650,142 19	12,386,507 85	90·74

As will be seen from the foregoing, operating expenses increased from $107,762,229.65 in 1919, to $137,941,658.88 in 1920, an advance of $30,179,429.23, or 28 per cent. Half of this increase, more than fifteen million dollars, was due to increased cost of transportation, in which wages figured largely. There was also an increase of more than six millions in maintenance of ways and structures and of more than eight millions in the maintenance of equipment. In the latter cases, the increase was due to high material costs, as well as increased wages. In addition, there were 3,234 more employees on the pay roll.

AVERAGE NUMBER OF EMPLOYEES.

——	1920	1919	Increase or Decrease	%
Canadian Government	23,849	24,057	−208	−0·86
Canadian Northern	33,654	30,212	3,442	11·39
Canadian National	57,503	54,269	3,234	5·96

Wage Increase

Due to the adoption of Award No. 2 of the United States Labour Board in September, 1920, new rates of pay become effective as of May, 1920, involving four months back time. The rates for individual classes, however, could not in many cases actually be made effective until November and December, so that in effect the back-time payments involved seven and eight months' increases. The amount and distribution of these increases is shown in the two following tables, while the third shows the very great advance of wages paid in 1920, as contrasted with 1917. It does not tell the complete story, however, as the rates shown are schedule rates only and do not include allowances or overtime, which bulk so largely in the cost of transportation:—

COMPARISON OF PAYROLL, TWELVE MONTHS ENDED DECEMBER 31, 1920
Including Betterments

——	1920	1919	Increase	%
	$ cts.	$ cts.	$ cts.	
Canadian Government	37,103,129 97	31,855,264 61	5,247,865 36	16·47
Canadian Northern	54,973,613 24	43,366,183 65	11,607,429 59	26·76
Canadian National	92,076,743 21	75,221,448 26	16,855,294 95	22·40

EXPLANATION OF INCREASE

——	Canadian Government	Canadian Northern	Total	%
	$ cts.	$ cts.	$ cts.	
Due to adoption of United States Labour Board Award No. 2	5,013,700 00	7,759,500 00	12,773,200 00	16·98
Betterments, Deferred Maintenance and Increased Services	50,537 33	3,549,292 35	3,599,829 68	4·79
Wages paid in 1920, properly chargeable to 1919	183,628 03	298,637 24	482,265 27	0·64
Total	5,247,868 36	11,607,429 59	16,855,294 95	22·41

STATEMENT SHOWING INCREASES IN RATES OF PAY FOR VARIOUS CLASSES OF EMPLOYEES

Class of Employee	Basis of Rate	1917	1918	1919	1920	Per Cent Increase		
						1918 over 1917	1919 over 1917	1920 over 1917
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		
Sectionman	Per Hour	0 19	0 40	0 40	0 48½	31·6	110·53	155·26
Machinist	"	0 37	0 68	0 68	0 85	83·8	83·8	129·7
Agent-Telegrapher	Per Month	66 00	85 00	111 00	125 00	28·8	68·2	89·4
Conductor—Passenger	Per 100 Miles	2 90	3 35	4 00	4 67	12·1	37·9	61·0
" Freight	"	4 00	4 82	5 40	6 44	20·5	35·0	
Brakeman—Passenger	"	1 60	2 23	2 66	3 33	39·4	66·2	108·1
" Freight	"	2 67	3 72	4 08	5 12	39·3	52·8	91·8
Engineer—Passenger	"	4 11	4 57	5 60	6 40	11·2	36·2	55·7
" Freight	"	4 53	5 23	6 08	7 12	15·4	34·2	59·4
Fireman—Passenger	"	2 50	3 15	4 00	4 80	26·0	60·0	92·0
" Freight	"	2 85	3 69	4 24	5 28	29·4	48·8	85·3

The above are schedule rates and do not include Allowances or overtime.

Cost of Material and Supplies

Out of every dollar earned by the National System 75 cents went to pay wages and 20 cents went for fuel, leaving only 5 cents to meet the cost of other material, as well as miscellaneous expenses, which together amounted to 29 cents. Coal cost $3.65 per ton in 1916, $4.45 in 1917, $6 in 1918, $6.20 in 1919, and $7.40 in 1920. The increase in 1920 as compared with 1919 added over five million dollars to the railway's fuel bill:—

COAL

——	1920		1919	Increase
Number of tons		3,066,344	2,800,383	265,961
Average price		$7 40	$6 20	$1 20
Increased expense on account of extra fuel	265,961	at $7 40	.....	$1,968,111 40
Increased expense on account of increase in price	2,800,383	at $1 20	.....	3,360,459 60
				$5,328,571 00

Similarly, railway ties which cost 51.06 cents in 1916 cost 83.40 cents in 1919 and 91.60 cents in 1920. The last increase added $312,798.90 to the railway's tie bill for 1920. Forty-two of the principal materials required by the railway increased on an average 138 per cent between 1914 and 1920.

Summary of Equipment

Notwithstanding the heavy cost of equipment, which in many cases was more than double that prevailing in 1914, it was necessary to order largely for 1920 delivery. These purchases amounted to $22,058,272 on Canadian National account, $5,243,925 on Grand Trunk Pacific account, and $16,133,795.75 on account of the Grand Trunk Railway.

The equipment in use on the Canadian National and Grand Trunk Pacific at the end of 1920, compared with the previous year, was as follows:—

	Dec. 31, 1919	Dec. 31, 1920
Locomotives—		
Canadian Northern	850	906
Canadian Government	767	767
Grand Trunk Pacific	259	281
Total	1,876	1,954
Sleeping and Dining Cars—		
Canadian Northern	114	155
Canadian Government	106	100
Grand Trunk Pacific	52	52
Total	272	307
Passenger Coaches—		
Canadian Northern	741	763
Canadian Government	416	389
Grand Trunk Pacific	182	181
Total	1,339	1,333

Baggage, Mail and Express Cars—		
Canadian Northern	227	250
Canadian Government	168	198
Grand Trunk Pacific	121	121
Total	516	569
Business Cars—		
Canadian Northern	26	25
Canadian Government	27	27
Grand Trunk Pacific	..	..
Total	53	52
Freight, Refrigerator and Stock Cars—		
Canadian Northern	37,457	40,660
Canadian Government	27,153	27,129
Grand Trunk Pacific	15,098	15,445
Total	79,708	83,234
Conductor's Vans—		
Canadian Northern	438	552
Canadian Government	414	414
Grand Trunk Pacific	136	135
Total	988	1,101
Instruction, Boarding, Tool and Auxiliary Cars; Steam Shovels and Snow Equipment—		
Canadian Northern	1,775	1,959
Canadian Government	818	845
Grand Trunk Pacific	492	519
Total	3,085	3,323
Total locomotives	**1,876**	**1,954**
Total cars	**85,961**	**89,919**

Grand Trunk Pacific Operation

The operation of the Grand Trunk Pacific Railway during 1920 forms the subject of a separate statement by Canadian National management which will be found among the contents of this report. Following it is a summarized report of the Committee of Management which was appointed to co-ordinate the operation of the Grand Trunk and Canadian National Railways. During the period of its activity this committee effected economies estimated to result in a saving per annum of $1,778,826.

Commissioner of Highways

Attached to the report of the Commissioner of Highways is a statement showing the number and location of projects for which agreements have been entered into between the Dominion Government and the various provinces, giving the mileage, total estimated cost, average cost per mile and the amount of Federal appropriation of each project, for the fiscal year ending March 31, 1921. Up to the close of the fiscal year no project statements had been received for New Brunswick, Manitoba and Alberta, but during April and May project statements covering practically the whole of the appropriation allotted to New Brunswick and Manitoba were approved and agreements entered into.

General programme plans were filed by all the provinces, showing the mileage and the estimated cost of road improvement in each. These figures are given below,

together with the amount of Federal aid which may be earned within the five years embraced by the Act:—

Province	Mileage	Total Estimated Cost	Amount of Federal Appropriation to which each Province is entitled
		$	$
Prince Edward Island	850	850,000	603,455
Nova Scotia	1,297	12,493,700	1,468,720
New Brunswick	1,595	2,914,612	1,163,845
Quebec	1,433	17,390,000	4,748,420
Ontario	1,824	22,200,000	5,877,275
Manitoba	4,000	6,602,265	1,602,265
Saskatchewan	2,500	5,329,500	1,806,255
Alberta	2,475	3,694,525	1,477,810
British Columbia	1,977	10,015,050	1,251,955
	17,951	81,489,652	20,000,000

Statement of Departmental Accountant

The statement of the accountant shows a grand total expenditure by the department of $1,210,358,992.83 to March 31, 1921. This is divided as follows:—

EXPENDITURE

Grand total expenditure on railways	$999,420,074.47
Grand total expenditure on canals	187,000,973.60
Common to both railways and canals	23,937,944.76
Grand total	**$1,210,358,992.83**

REVENUE

Grand total revenue from railways	**$391,866,392.09**
Grand total revenue from canals	18,275,998.15
	$410,142,390.24

The expenditure for the year includes the following principal items: Canadian Government Railways (working expenses), $43,770,971.10, (capital) $5,588,469.73; railway equipment, $15,543,373.46; purchase of railways, $731,018.35; Welland ship canal, $5,070,297.57; Trent canal, $379,664.11; canals (general), $3,934,155.64; acquisition of Grand Trunk Railway, $799,941.02; Canada Highways Act, $535,000.97.

Revenue received from Government railways (Intercolonial and branch lines and Transcontinental) amounted to $36,814,349.70, and from canals $366,010.69. No tolls are charged on the canals and this revenue consisted mainly of water-power and other leases, wharfage and elevator charges. During the year $1,222,953.14 was realized from the sale to the Canadian Government Merchant Marine of the steamers *Sheba, Drummond* and *McKee,* which had been in the service of the Hudson Bay and Intercolonial Railways.

Tabulated statements included in the accountant's report show the total amount which the various public works undertaken by the department have cost to date, as well as the amount expended each year since Confederation.

There were no payments during the year on account of railway subsidies.

SESSIONAL PAPER No. 20

Acquisition of Grand Trunk and Subsidiary Concerns

With this report is published a statement of the events and circumstances leading up to the acquisition by the Government of the Grand Trunk and its subsidiaries. This compilation is a summary of the various Acts of Parliament, agreements, correspondence and official statements in the House of Commons with respect to the construction of the Grand Trunk Pacific and Transcontinental and subsequent difficulties of the Grand Trunk. An effort has been made to reduce to orderly form the mass of departmental and other records so that there would be available a narrative, in logical sequence, of the events leading up to the acquisition of the properties in question. To this has been appended a copy of the award of the arbitrators and reasons therefor.

The acquisition of the Grand Trunk and Grand Trunk Pacific means that more than 50 per cent of the railways in Canada are now under Government operation and control, and in this connection the following consolidated figures will be of interest:—

MILEAGE

	Miles
Canadian Northern System (Canadian lines)	9,652·6
(Including American mileage, 9,868·9)	
Canadian Government Railways	2,314·50
St. John and Quebec (leased)	172·07
Hudson Bay Railway (mileage under operation)	243·
Transcontinental Railway (including Lake Superior branch)	2,006·58
Grand Trunk Pacific and branch lines	2,732·42
Grand Trunk Railway (Canadian lines)	3,611·68
(Including American lines, 4,775·57)	
Total—Canadian lines	20,732·85
Including American lines	22,113·04

AVERAGE NUMBER OF EMPLOYEES, 1920

Canadian Government	23,849
Canadian Northern	33,654
Grand Trunk (Canadian lines)	31,686
(Including American lines, 44,055)	
Grand Trunk Pacific	7,685
Total	96,874
(Including G.T.R. American lines)	109,243

COMPENSATION, 1920

Canadian National pay-roll	$95,727,115
Grand Trunk (in Canada)	53,375,736
(Including American lines, $75,696,365)	
Grand Trunk Pacific	13,075,444
Total	$162,178,297
(Including G.T.R. American lines)	184,498,926

REVENUE TONS OF FREIGHT CARRIED, 1920

Canadian Government	$12,859,955
Canadian Northern	14,504,796
Grand Trunk (in Canada)	26,322,423
(Including American lines, $33,026,658)	
Grand Trunk Pacific	2,853,116
Total	$56,540,290
(Including Grand Trunk American lines)	63,244,525

PASSENGERS CARRIED, 1920

Canadian Government	7,266,749
Canadian Northern	5,648,352
Grand Trunk (in Canada)	12,206,977
(Including American lines, 14,378,416)	
Grand Trunk Pacific	824,732
Total	25,946,810
(Including Grand Trunk American lines)	28,118,249

EQUIPMENT

Locomotives—	
Canadian National	1,673
Grand Trunk	1,425
Grand Trunk Pacific	281
Total	3,379
Passenger train cars—	
Canadian National	1,807
Grand Trunk	1,074
Grand Trunk Pacific	354
Total	3,235
Freight train cars—	
Canadian National	68,755
Grand Trunk	42,686
Grand Trunk Pacific	15,580
Total	127,021
Work cars—	
Canadian National	2,804
Grand Trunk	2,449
Grand Trunk Pacific	519
Total	5,772
Total locomotives	3,379
Total cars	136,028

INCOME ACCOUNT

Grand Trunk Railway System, including Central Vermont Railway

	1919		1920
Railway operating revenues	$68,687,728.47		$113,223,934.52
Railway operating expenses	60,687,947.92		108,884,828.58
Net revenue from railway operations	$ 7,999,780.55		$ 4,339,105.94
Railway tax accruals	1,202,908.37		2,314,344.59
Uncollectible railway revenues	7,413.23		26,188.01
Total operating income	$ 6,789,458.95		$ 1,998,573.34
Non-operating income	8,829,390.56		14,444,539.17
Gross income	$15,618,849.51		$ 16,443,112.51
Deduct interest on funded debt	$11,642,337.37		$ 12,542,824.57
Rental and other charges against Income	3,693,546.96		8,924,434.87
Total deductions from gross income	$15,335,884.33		$ 21,467,259.44
Net income	$ 282,965.18	—	$ 5,024,146.93
Dividend on guaranteed stock	.....	—	1,482,812.50
Profit and loss items	— 378,652.89	+	56,304.79
Deficit	— $ 95,687.71	—	$ 6,450,654.64

SESSIONAL PAPER No. 20

Report of Chief Engineer of State of Canals

The report of the chief engineer contains a concise summary of the canal system of the Dominion and a statement of events of importance connected with operation during the 1920 season. In several instances lock gates were carried away or damaged by contact with vessels locking through. Four of these mishaps occurred on the Welland, two on the Cornwall and one on the Farran's Point canal. These caused delays ranging from a few to thirty-three hours.

The Port Colborne elevator, which was badly damaged by explosion in August, 1919, resumed operation in September, 1920, in time to handle 4,489,826 bushels of grain before the close of navigation.

During the fiscal year, work was continued on sections 1, 2, 3 and 5 of the Welland Ship canal. The operations were carried on by the department on force account pending the reletting of contracts which were annulled during the war. Difficulty was experienced in getting an adequate supply of cement. After work was commenced on section 3, traffic on the construction railway became fairly heavy, as many as seventy-one trains being handled over the line in a single day.

There was a slight increase in passenger traffic through the Canadian canal at Sault Ste. Marie, but a falling-off of 40 per cent in the freight tonnage. However, the freight tonage of Canadian vessels passing through both American and Canadian canals increased by 6 per cent.

The Trent canal is in operation from Trenton to Washago at the head of lake Couchiching, 203·6 miles, with a branch to Lindsay, 30 miles, and various other channels, aggregating in all about 300 miles. The portion of the canal under construction lies between Washago and Honey Harbour and Port Severn on Georgian bay, and is known as the Severn division. It is now possible for motor launches to pass from lake Ontario to Georgian bay and vice versa, by the use of two inclined marine railways at Big Chute and Swifts rapids. This trip is becoming very popular with motor-boat tourists.

Compilation of data bearing on the possible enlargement of the St. Lawrence canal system has been continued by the engineers of the department and tentative plans have been evolved for a comprehensive development of the upper section of the river. These will form the basis for a joint engineering report to the International Joint Commission, to whom the question of the St. Lawrence canals enlargement has been referred by the Governments of Canada and the United States.

Your obedient servant,

G. A. BELL,
Deputy Minister.

September 14, 1921.

CANADIAN NORTHERN RAILWAY SYSTEM

The Sixth Annual Report of the directors of the Canadian Northern Railway System, covering the operations of the road for the year ended December 31, 1920, is submitted by President D. B. Hanna, as follows:—

Gross earnings—		
From passenger traffic	$12,694,846 83	
From freight traffic	49,049,946 83	
From express, mail and telegraphs	2,193,065 67	
Miscellaneous earnings	2,757,539 47	
	$66,695,398 80	
Interest and profits from elevator and other subsidiary companies, investments, etc.	1,845,994 62	
		$68,541,393 42
Working expenses	$82,953,978 60	
Hire of equipment, taxes, rentals and miscellaneous charges	1,311,289 65	
		$84,265,268 26
Deficit		$15,723,874 83
Interest charges		24,319,956 05
Total deficit		$40,043,830 88

MILEAGE

The total mileage operated at the end of the year was 9,868·9, being an increase of 183·2 over the previous year. The average mileage operated throughout the year was 9,788·0 miles.

OPERATING REVENUES

The total increase in operating revenues was $13,133,221.23, made up as follows:—

Freight traffic increased by	$9,874,394.74	or by 25.20%
Passenger " " "	1,919,138.37	or by 17.81%
Other " " "	1,339,688.12	or by 37.10%

The above increases are due partly to additional traffic and partly to the freight and passanger rate increases which were made effective September 13, 1920.

TRAFFIC MOVEMENT

Freight tonnage increased by 2,065,097 tons, which is an increase of 16·6 per cent. The comparative statement of freight carried shows substantial increases in grains, coal and forest products, also in building material and manufactured goods.

It is worthy of note that the grain handled during the calendar year 1920 exceeded by 2,581,392 bushels the movement for the twelve months ended June 30, 1916, which included the record crop of 1915. The yield per acre was not so high as in that year, and the crop figures therefore show that the grain was produced from greater acreage. The yield was heavier and the acreage greater in the grain sections

further west to an extent that the average haul on grain shipments over your lines from the Prairies to the lake terminals increased by 212 miles, viz., from 660 to 872 miles, an increase of 32 per cent. This increased haulage, together with the greater tonnage to be moved, taxed the joint facilities of the co-ordinated railways to the limit during the rush period. The lines of the Grand Trunk Pacific Railway, which were taken over for operation on September 1, were worked in complete co-operation for the grain movement. With practically the same rolling stock available in the autumn months as the two lines had separately last year, yet due to the co-ordination of all facilities, a substantial increase was obtained in ton mile movement.

The intensity of the transportation service required from your Western System during the autumn was heightened by the large eastbound movement of coal, which took place during the grain handling months. Coal traffic in actual tonnage handled, increased by 21 per cent, but, due to the wider distribution of coal from the Alberta fields replacing Pennsylvania coal, the ton mile movement was considerably higher than the straight tonnage increase would indicate, and the movement was in the same direction, as the grain instead of in the opposite direction. Receipts of western coal at Winnipeg showed an increase of over 50 per cent. The increase in shipments from the Alberta coal fields was over 21,000 carloads.

As further evidence of the wider distribution of coal from the Alberta fields, it may be stated that over 5,000 tons moved to Vancouver (and over 25,000 tons to Prince Rupert, via G.T.P.), both new movements, as these points had previously obtained Pacific coast coal.

Such a large tonnage has developed in pulpwood and paper, wood-pulp, etc., that these items are now being separately classified. Merchandise and miscellaneous traffic, which in 1919 included paper and wood-pulp, show a substantial increase. The pulpwood and paper industries are largely located on your lines and those of associated railways, and the increasing demand for these commodities assures a large traffic, although at present the business is affected by the general depression.

The improvement in traffic which is shown in the great natural products of a new country such as grain, coal and forest products, is a good indication that the development is under way that was counted on when your lines were projected. While there is a decrease in live stock tonnage, there was a satisfactory increase in the long haul movement from Western to Eastern Canada, and the relative position of your system as a factor in this business was materially advanced during the year.

The year under review was one which ended disappointingly. As briefly referred to in last year's report, the first months of the year showed good increases in revenue and these continued until the end of the summer. While the crop in Western Canada maintained a heavy grain traffic movement on your Prairie lines to the head of the Great Lakes, yet general business suffered a very severe setback in the latter months of the year. As over 60 per cent of your mileage participates in the grain movement which, as stated, was good, the results of the business depression are not fully reflected in the company's statements.

The movement of grain to the Pacific coast for export, which has begun, is an indication of traffic development that will be of great moment to your lines on account of the exceptionally low grades which your system's main line has across the Continental Divide.

The improvement in passenger traffic is not indicated by the comparative figures, as 1919 returns include revenue from troop movements. Deducting this revenue the increase over 1919 from what might be termed normal traffic would be $2,600,000.

OPERATING EXPENSES

Of the increase of $22,919,956 in operating expenses, $10,380,860.84 represents payroll increases, and of this latter amount $6,033,000 was due to the increases under Decision No. 2 of the U.S.R.R. Labour Board, which Canadian railways had to adopt in September, 1920, and which carried four months' back pay from May 1, against which the increased rates as mentioned below were not in effect till the middle of September.

The average wages of Canadian Northern employees since system returns have been available, are as follows:—

1915	$ 713 00
1916	734 00
1917	920 00
1918	1,197 00
1919	1,330 00
1920	1,633 00

The average indicated by the present rates for 1921 is $1,850.

The maintenance of way and maintenance of equipment expenses were augmented by having to undertake during the year a large proportion of the maintenance work (referred to in previous reports) which, due to war and other conditions, had of necessity been deferred, and on which a start was made in 1919. $6,348,243 was expended on work of this character during the year 1920.

Locomotive fuel cost increased by $4,548,000 over 1919, of which $2,560,000 was due to the increased cost of $1.86 per ton.

The cost of various materials and supplies increased from 20 per cent to 40 per cent over 1919 prices.

The cost of operation measured on a train mile basis has advanced as follows:—

1915	$1 34
1916	1 41
1917	1 98
1918	2 65
1919	3 86
1920	3 99

Such advances in expenses as are indicated above have not been anything like offset by additional revenue from freight and passenger tariff increases. The operating ratio of all railways operating under similar conditions has therefore increased until the situation is giving cause for serious concern all over the continent.

Canadian railways, as the Chief Commissioner of the Board of Railway Commissioners has said, are interlocked with and interdependent on United States railways to an extent that affects "every branch of the service, both mechanical and physical," as well as the employees. The passenger and freight rates in the two countries, measured by the amount received per passenger and per ton mile, have been at much the same level for years, and the wages are practically standard. Canadian railways have to pay more for their coal, for iron and steel products and for other important items of supply and for rolling stock and motive power, from 30 to 35 per cent higher, so that the general cost of operation, particularly when weather is considered, is greater in Canada. It is certain that excepting Canada, no other country's railway rates are lower than those in United States. Under almost identical rates that obtained in Canada during 1920, a number of United States railways with density of traffic unknown here, failed to pay operating expenses, while many roads narrowly averted that situation and had no earnings with which to pay the bulk of their interest charges.

FREIGHT RATE INCREASES

Effective September 13, 1920, freight tariffs were authorized to be increased by 40 per cent in the East and 35 per cent in the West, but these increases were in effect only to December 31, when the freight increases became 35 per cent in eastern, and 30 per cent in western territory. From these rate increases there were various exceptions. On stone, sand and gravel there were no increases, and small increases only were allowed on coal and other fuel rates.

PASSENGER FARES

Passenger fares were increased by 20 per cent, but a maximum of 4 cents per mile was provided, and the increase was reduced to 10 per cent effective January 1, 1921. A further reduction, cutting off the remaining 10 per cent, becomes effective on July 1, 1921, which will then restore the rates in effect prior to September 13, 1920.

LAND DEPARTMENT

Land sales for the year were 84,002 acres for $1,738,801.46, an average of $20.70 per acre, compared with an average of $19.42 for the preceding period.

During the same period, sales previously entered into aggregating 31,188.76 acres, were by mutual agreement cancelled, so that the acreage of land available for sale has been decreased by 52,813 acres, leaving a total of 719,495 acres unsold.

SECURITIES ISSUED

Additional car trust obligations were created during last year to the extent of of $15,000,000 for the purchase of equipment of different kinds, and $5,919,000 was repaid in respect of previous obligations, thus making the net increase $9,081,000 and leaving the total amount of car trust obligations outstanding at December 31, 1920, $42,017,000.

New equipment costing $22,058,272 was ordered in 1920, including 75 locomotives, 4,756 freight cars of various kinds, and 70 cars for passenger, baggage and express business.

In December, an issue of $25,000,000 seven per cent 20-year bonds, guaranteed by the Dominion Government, was authorized to provide for maturing loans.

CONSTRUCTION AND BETTERMENTS

Adhering to the announced policy of your directors, construction work was largely confined to those extensions of your western lines that had been commenced prior to the war.

Work was done on the following lines:—

Acadia Valley extension, Hanna-Medicine Hat line, Oliver Northeasterly, Onoway, Red Deer spur, Munson double tracking, Alsask Southeasterly, Eston Southeasterly, Humboldt-Melfort line, Luck lake, Melfort Northeasterly, Pebbles-Lampman line, Swift Current Branch, Thunderhill Extension, Jackfish Lake, Prince Albert Northeasterly, Turtleford Easterly, Okanagan Branch and the Vancouver Island line.

In all, 141·5 miles were graded and track was laid on 147·6 miles, while 182·5 miles were surfaced.

Good progress was made on the improvement and betterment programme during 1920.

On 233 miles, new rails of heavier section were laid, 536 miles were re-ballasted, 665,600 tie plates were applied and 20,800 rail anchors, 144 miles of fencing was completed. Among the buildings erected were 30 new stations, 7 freight sheds and 25 such buildings were enlarged, 106 section and bunk houses, 133 miscellaneous buildings, 8 new coaling plants were erected, 17 water stations were improved, 143 sidings were constructed or extended, 47 bridges and 42 culverts were built, 67 bridges and trestles were filled.

Equipment betterment work included the improvement of a number of locomotives by the application of super heaters and other improved devices that tend towards efficiency of operation. Freight and passenger cars were not only maintained, but many units were improved by the application of stronger draft gear, new roofs, steel under frames, etc.

While much work is required to carry out the improvements necessary to fully equip your lines, yet in view of existing financial conditions and the prospect of prices for both labour and material being reduced in the near future, it has been considered wise to make a considerable reduction in the amount of improvement and betterment work to be done this year as compared with what, under normal conditions, would be recommended.

CANADIAN GOVERNMENT MERCHANT MARINE, LIMITED

By the end of the year under review, 47 vessels of the Canadian Government Merchant Marine were in operation, giving ocean cargo services in conjunction with your railways to the world's principal markets. These services have been valuable from a traffic standpoint and have also encouraged Canadian trade. During 1920, both import and export traffic via the Pacific was materially increased through the operations of the Canadian Government Merchant Marine Limited to and from British Columbia ports. Reports from the West show that export traffic to the Atlantic seaboard has also been increased. When the 63 ships, which the building programme provides for are all in service, the co-operation from an ocean cargo fleet of such magnitude will be an asset of great value.

GENERAL REMARKS AND PROSPECTS

Your directors during the year were asked by the Minister of Railways as receiver for the Grand Trunk Pacific Railway, to assume the management of the Grand Trunk Pacific lines, and these lines were taken over for operation on September 1, 1920, but the results of operation of these lines are being separately recorded and are not included in this report. These lines, with those of the Canadian Northern Railway System, together with the lines formerly known as the Canadian Government Railways, make up a total of 17,337 miles under your directors' management.

In view of the fact that the Canadian Government Railways and Grand Trunk Pacific lines are operated in complete co-operation with the lines of the Canadian Northern System, it may not be out of place to refer to one or two features of the railway situation in Canada as affecting the existing National Railways System as a whole.

As previously stated, the general question of reducing operating costs so that a proper relationship may be re-established between expenses and earnings, is a problem not only for Canadian National Railways, but, generally speaking, for all railways on this continent.

The Canadian National Railways' difficulty is that having a very extensive transportation system, it has not sufficient density of traffic to enable the business

to be handled in large units while having to fully maintain the roadway structures and equipment. It therefore is unable to benefit fully from its excellently located lines, its low grades and other physical advantages that give the property a capacity much beyond the traffic offering. When traffic develops as everything in the pre-war period indicated, the National lines will come into greater use, and economies of operation not now practicable will be made possible. It must be remembered that a large proportion of the mileage included in the National System is of a colonization nature, and can only produce traffic after settlement takes place. Since the war commenced, immigration has been practically cut off compared with the pre-war influx, but there are encouraging reports which indicate that the movement is about to resume. The future of the National System depends in a large measure on the new-comers, and on the numbers in which they take up the lands that have been opened up in advance for them by the construction of colonization railways. Also, there must be a greater

The location of the National lines, the country served and other features that enter into the problem led your directors to confidently predict that the necessary traffic will materialize to enable the National lines to meet the operating performances of other railways.

Reverting to the Canadian Northern Railway System's returns, it may be noted from the following table that very substantial progress has been made in traffic development since the lines were consolidated even though this took place during the war period.

CANADIAN NORTHERN RAILWAY SYSTEM

TABLE SHOWING DEVELOPMENT OF TRAFFIC

Fiscal Year	Average Miles Operated	Revenue Tons Carried	Revenue Ton miles per mile of Road	Average Dist. Freight Haul	Pas-sengers Carried	Pass. miles per mile of Road	Average Pas-senger Journey
1915..	7,269	10,536,769	296,998	212,203	3,961,787	28,486	51.812
1916..	8,048	12,930,460	481,135	297,191	3,859,844	28,413	58.794
Calendar							
1917..	9,433	13,834,676	463,707	312.86	4,503,958	31,425	65.130
1918..	9,452	13,289,641	425,442	302.59	4,144,965	30,477	70.01
1919..	9,636	12,439,314	425,472	325.26	4,925,547	36,256	70.00
1920..	9,788	14,504,411	485,169	323.18	5,468,352	40,139	70.92

Average miles operated includes electric line, but statistics are based on steam line mileage only.

It is worthy of note that since June 30, 1915, the end of the first year for which a system report was prepared, which was prior to the opening of your transcontinental main line, over 2,500 miles of line have been absorbed into the system (including the Pacific Coast Extension, and the connection between the Eastern and Western sections of your system forming part of the transcontinental line referred to), an increase of 33⅓ per cent, and yet the density of freight traffic measured by the revenue tons carried one mile per mile of road has increased from 296,998 tons to 485,169 tons, an increase of 63.36 per cent and the density of passenger traffic measured by the number of passengers carried one mile per mile of line has increased from 28,486 to 40,139, an increase of 40.91 per cent. This volume of traffic if handled at pre-war train mile costs and at pre-war freight and passenger rates would have given your system substantial net earnings from these sources alone, and with express, mail and miscellaneous earnings, the amount would have provided for a large proportion of the system's fixed charges.

Your board takes the opportunity of expressing its thanks to officers and employees for loyal and efficient services rendered during the year.

D. B. HANNA,

President.

CONSOLIDATED BALANCE SHEET AT DECEMBER 31, 1920

ASSETS

Investments—Property investment. Investment in road and equipment, including portion of discount on funded debt		$579,508,488 87
Acquired securities (Exhibit A)		45,864,181 81
Terminal and other properties		7,019,940 93
		$632,392,611 61
Cash and Victory Bonds (at cost) in trust accounts held in respect of construction work, sinking funds and other special accounts—		
Dominion Government	1,395,137 01	
Province of Manitoba	53,336 61	
Province of Saskatchewan	1,202,825 24	
Province of Alberta	1,305,775 29	
Province of Ontario	99,818 12	
Province of British Columbia	740,471 18	
National Trust Company	2,261,268 80	
British Empire Trust Company	38,087 11	
Pennsylvania Company re Equipment Series A (1918), and B (1919)	240,328 29	
Girard Trust Company re Equipment Series E (1920)	4,412,580 00	
Sinking funds	866,064 42	
		12,615,692 07
Lands unsold		18,110,573 82
Other investments (at cost)		4,486,240 84
		$667,605,118 34
Current assets—		
Cash in bank	$ 14,767,583 77	
Balance due from agents' station balances, etc. (net)	2,319,811 40	
Miscellaneous accounts receivable	16,684,995 17	
Deferred payments on account of land sales and accrued interest	8,109,075 87	
Materials and supplies on hand (as per books)	19,109,828 12	
		60,991,294 33
Deferred charges—		
Portion of discount on funded debt	$ 1,027,017 92	
Insurance premiums unexpired	967,411 93	
Unadjusted debits (net balance)	1,483,196 15	
		6,477,626 00
Advances by the Canadian Northern Railway company to affiliated companies (per contra)		11,854,267 00
Profit and loss account—Balance		50,140,977 66
		$794,069,281 33

NOTE.—The Ontario Government questions the title of the Canadian Northern Ontario Railway to the lands granted in respect of construction of lines in Ontario which are valued by the company at $6,000,000.

CONSOLIDATED BALANCE SHEET AT DECMEBER 31, 1920

LIABILITIES

Stock—		
Capital stock—		
Common	.....	$100,000,600 00
Affiliated companies	$ 77,208,100 00	
Less—Held in Treasury	71,370,900 00	
		5,837,200 00
		$105,837,800 00
Long term funded debt—		
Canadian Northern Railway (Exhibit B)	$150,813,548 91	
Affiliated companies (Exhibit C)	125,659,291 79	
	$276,472,840 70	
Five per cent income charge convertible debenture stock	24,999,400 00	
Equipment trust obligations	42,017,000 00	
		343,489,240 70
Demand and short term loans secured by collateral or mortgage	.....	48,834,784 74
Dominion of Canada	.....	233,800,738 23
Current liabilities—		
Audited vouchers and other floating liabilities	$ 29,961,492 64	
Pay rolls	3,702,304 12	
Interest and equipment obligations matured	3,557,023 10	
Accrued interest on bonds, loans and equipment securities	5,002,076 81	
Taxes accrued	926,487 24	
		43,149,383 91
Reserves—		
Steamship replacement fund	$ 3,310,019 45	
Equipment replacement fund	111,619 67	
Insurance account	554,140 28	
Portion of profit on exchange reserved	3,127,289 35	
		7,103,068 75
Advances to affiliated companies by Canadian Northern Railway Company (per contra)	.....	11,854,265 00
		$794,069,281 33

C. E. FRIEND,
Comptroller.

AUDITOR'S CERTIFICATE

We have examined the books and records of the Canadian Northern Railway System for the twelve months ended 31st December, 1920, and we certify that in our opinion the above balance sheet is properly drawn up so as to exhibit a true and correct view of the affairs of the system at 31st December, 1920, and is in accordance with the books and the explanations and information given.

GEORGE A. TOUCHE & CO.,
Chartered Accountants,
Auditors.

Toronto, Ont., April 7, 1921.

INCOME STATEMENT FOR FISCAL YEAR ENDED DECEMBER 31, 1920.

Revenue	$66,695,398 80	
Subsidiary miscellaneous earnings	1,845,994 62	
		$68,541,393 42
Working expenses	$82,953,978 60	
Taxes, rentals, joint facilities, etc.	1,311,289 65	
		84,265,268 25
Loss on operation		$15,723,874 83
Fixed charges—		
Canadian Northern Railway	$ 9,455,084 25	
Affiliated companies	4,890,259 41	
Interest on demand and short term notes and loans—		
Government	10,326,260 69	
Other (net balances)	797,376 60	
	$25,468,980 95	
Less—		
Profit on exchange	1,149,024 90	
		24,319,956 05
Deficit carried to profit and loss statement		$40,043,830 88

PROFIT AND LOSS STATEMENT AT DECEMBER 31, 1920.

Deficit on income account for the year	$40,043,830 88	
Discount, etc., on funded debt	344,749 78	
Delayed income debits and credits—Debit balance	216,869 48	
		$40,605,450 14
Deficit brought forward at December 31, 1919		9,535,527 52
Total deficit at December 31, 1920, carried to balance sheet		$50,140,977 66

ACQUIRED SECURITIES

EXHIBIT A

The Minnesota & Ontario Bridge Company—	
4½ per cent first mortgage debenture bonds	$ 180,000 00
Capital stock	100,000 00
The Minnesota & Manitoba Railroad Company—	
5 per cent general mortgage bonds	250,000 00
Capital stock	400,000 00
The Lake Superior Terminals Company, Limited—	
5 per cent first mortgage gold bonds	2,000,000 00
Capital stock	500,000 00
The Canadian National Telegraph Company—	
5 per cent general mortgage bonds	800,000 00
Capital stock	500,000 00
The Winnipeg Land Company, Limited—	
5 per cent first mortgage gold bonds	300,000 00
Capital stock	100,000 00
St. Boniface Western Land Company—	
5 per cent first mortgage bonds	750,000 00
Capital stock	250,000 00
The Edmonton & Slave Lake Railway Company—	
5 per cent first mortgage bonds	420,000 00
The Canadian Northern Railway Express Company, Limited—	
4 per cent first mortgage gold bonds	3,000,000 00
Capital stock	1,000,000 00
Canadian Northern Steamships, Limited—	
Capital stock	2,000,000 00

ACQUIRED SECURITIES—*Continued.*

Canadian Northern System Terminals, Limited—	
5 per cent first mortgage debenture stock	7,000,000 00
Capital stock	2,000,000 00
The Bay of Quinte Railway Company—	
Preferred stock	465,000 00
Common stock	930,000 00
Central Ontario Railway—	
Preferred stock	291,000 00
Common stock	3,038,000 00
The Irondale, Bancroft & Ottawa Railway Company—	
5 per cent first mortgage bonds	450,000 00
Capital stock	53,000 00
The Marmora Railway & Mining Company—	
Bonds of Ontario, Belmont & Northern Railway	100,000 00
Capital stock	128,600 00
The Qu'Appelle, Long Lake & Saskatchewan Railroad & Steamboat Company—	
Capital stock	201,000 00
The Niagara, St. Catharines & Toronto Railway Company—	
Capital stock	924,900 00
The Niagara, St. Catharines & Toronto Navigation Company, Limited—	
5 per cent gold bonds	200,000 00
Capital stock	100,000 00
The Quebec & Lake St. John Railway Company—	
Capital stock	4,034,800 00
Canadian Northern Pacific Railway Company—	
Capital stock	25,000,000 00
Canadian Northern Alberta Railway Company—	
Capital stock	3,000,000 00
Canadian Northern Western Railway Company—	
Capital stock	2,000,000 00
The Canadian Northern Saskatchewan Railway Company—	
Capital stock	1,000,000 00
Canadian Northern Manitoba Railway Company—	
Capital stock	250,000 00
The Canadian Northern Ontario Railway Company—	
Capital stock	10,000,000 00
Duluth, Winnipeg & Pacific Railway Company—	
Capital stock	3,060,000 00
The Duluth, Rainy Lake & Winnipeg Railway Company—	
Capital stock	2,000,000 00
The Duluth, Winnipeg & Pacific Railroad Company—	
Capital stock	100,000 00
Mount Royal Tunnel & Terminal Company, Limited—	
Capital stock	5,000,000 00
The Northern Consolidated Holding Company, Limited—	
Capital stock	4,446,700 00
This company, whose issued capital is $6,181,500, owns $5,144,600 capital stock in the Canadian Northern Quebec Railway Company.	
The Canadian Northern Quebec Railway Company—	
Capital stock	2,000,000 00
The Halifax & South Western Railway Company—	
Capital stock	1,000,000 00
The Bessemer & Barry's Bay Railway Company—	
Capital stock	125,000 00
The Toronto Eastern Railway Company—	
5 per cent first mortgage debenture bonds	900,000 00
Capital stock	250,000 00

ACQUIRED SECURITIES—*Concluded.*

The Toronto Suburban Railway Company—		
Capital stock	1,500,000 00	
The Canadian National Realties, Limited—		
Capital stock	40,000 00	
The Toronto Dwellings Limited—		
Capital stock	100,000 00	
The Federal Properties Limited—		
Capital stock	1,000 00	
The Toronto, Niagara & Western Railway Company—		
Capital stock	125,000 00	
The St. Charles & Huron River Railway Company—		
Capital stock	10,000 00	
The Canadian National Transfer Company, Limited—		
Capital stock	500,000 00	
The Imperial Rolling Stock Company, Limited—		
Capital stock	211,600 00	
The Canadian Northern Rolling Stock Company, Limited—		
Capital stock	50,000 00	
The Canadian National Rolling Stock Company, Limited—		
Capital stock	70,000 00	
The James Bay & Eastern Railway Company, Limited—		
Capital stock	1,250,000 00	
Total acquired securities		$96,435,000 00
Cost to the railway company		$45,864,181 81

EXHIBIT B.

FUNDED DEBT OF THE CANADIAN NORTHERN RAILWAY COMPANY.

GUARANTEED AS TO PRINCIPAL AND INTEREST BY THE DOMINION OF CANADA

	Sterling	Currency
3 per cent first mortgage debenture stock	£1,923,287	$9,359,996 72
3½ per cent first mortgage debenture stock	1,622,586	7,896,588 26
4 per cent Dominion guaranteed debenture stock	.....	17,060,333 33
7 per cent 20-year sinking fund debenture bonds	.....	25,000,000 00
GUARANTEED BY GOVERNMENT OF MANITOBA		
4 per cent first mortgage consolidated debenture bonds	£2,215,900	$10,784,046 65
Underlying bonds		
4 per cent Sifton Branch bonds	233,700	1,137,340 00
4 per cent Gilbert Plains Branch bonds	500	2,433 33
4 per cent Manitoba & S.E. bonds	105,300	512,460 00
4 per cent Ontario Division first mortgage debenture bonds	1,180,600	5,745,586 66
4 per cent Winnipeg Terminal bonds	616,438	3,000,000 00
4 per cent first mortgage debenture stock	587,671	2,859,998 87
GUARANTEED BY GOVERNMENT OF SASKATCHEWAN		
4 per cent first mortgage debenture stock	1,650,000	8,029,999 99
GUARANTEED BY GOVERNMENT OF ALBERTA		
4 per cent first mortgage debenture stock	£1,147,945	$5,586,665 64
4 per cent perpetual consolidated debenture stock	9,234,867	44,943,019 40
4 per cent land grant bonds (1909)	217,300	1,057,526 72
5 per cent land mortgage debentures	1,477,100	7,188,553 34
4½ per cent Prince Albert Branch first mortgage bonds	.....	300,000 00
Long term loans at 4 per cent against deposit of $352,000 bonds of Minnesota & Manitoba Railroad Company payable 1950	.....	349,000 00
		$150,813,548 91

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EXHIBIT C.

FUNDED DEBT OF AFFILIATED COMPANIES

	Sterling	Currency
The Canadian Northern Alberta Railway Company		
Guaranteed by Dominion Government—		
3½ per cent first mortgage debenture stock.. ...	£647,260 0 0	$3,149,998 66
Canadian Northern Western Railway Company		
Guaranteed by Government of Alberta—		
4½ per cent first mortgage debenture bonds (1943)	575,342 0 0	2,799,997 73
4½ per cent first mortgage debenture stock (1942)	1,320,000 0 0	6,424,000 00
Canadian Northern Pacific Railway Company		
Guaranteed by Government of British Columbia—		
4 per cent first mortgage debenture stock..	3,372,329 0 0	16,412,001 13
4½ per cent terminal debenture stock..	1,770,000 0 0	8,614,000 00
The Canadian Northern Ontario Railway Company		
Guaranteed by Dominion Government—		
3½ per cent first mortgage debenture stock..	7,033,561 0 0	34,229,996 87
Guaranteed by Government of Ontario—		
3½ per cent first mortgage debenture stock..	1,615,068 0 0	7,859,997 59
4 per cent perpetual consolidated debenture stock	1,866,499 0 0	9,083,628 46
Central Ontario Railway		
5 per cent first mortgage bonds..	171,300 0 0	833,660 04
The Bay of Quinte Railway Company		
5 per cent first mortgage bonds..	.....	780,000 00
The Canadian Northern Quebec Railway Company		
4 per cent perpetual guaranted debenture stock..	1,078,843 0 0	5,250,369 26
Great Northern Railway of Canada, 4 per cent first mortgage bonds..	.....	3,505,750 00
The Quebec and Lake St. John Railway Company		
4 per cent first mortgage perpetual guaranteed debenture stock..	895,688 0 0	4,359,014 93
Duluth, Winnipeg and Pacific Railway Company		
4 per cent first mortgage debenture stock.. ..	1,440,683 0 0	7,011,323 93
The Halifax and South Western Railway Company		
3½ per cent first mortgage bonds..	.....	4,447,000 00
The Niagara, St. Catharines and Toronto Railway Company		
5 per cent first mortgage bonds..	.....	1,098,000 00
The Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company		
4 per cent first mortgage guaranteed debenture stock..	1,031,412 6 0	5,019,539 86
Mount Royal Tunnel and Terminal Company, Limited		
5 per cent first mortgage rent charge bonds..	442,400 0 0	2,153,013 33
The Toronto Suburban Railway Company		
4½ per cent first mortgage debenture stock..	540,000 0 0	2,628,000 00
		$125,659,291 79

OPERATING REVENUE, OPERATING EXPENSES AND NET EARNINGS, YEAR ENDED DECEMBER 31, 1920

COMPARED WITH PREVIOUS FISCAL YEAR

Operating Revenues

Per Cent.	1920	Class	1919	Per Cent.
19·03	$ 12,694,846 83	Passenger	$ 10,775,708 46	20·12
73·54	49,049,946 83	Freight	39,175,552 09	73·14
0·67	446,974 15	Mails	374,926 26	0·70
2·62	1,742,447 20	Express	1,209,645 65	2·26
4·14	2,761,183 79	Miscellaneous	2,026,345 11	3·78
100·00	$ 66,695,398 80	Total	$ 53,562,177 57	100·00

Operating Expenses

Per Cent.	1920	Class	1919	Per Cent.
	$		$	
26·07	21,630,033 77	Maintenance of way and structures	15,905,058 62	26·49
20,42	16,937,767 67	Maintenance of equipment	11,569,896 52	19·27
1·66	1,373,168 70	Traffic expenses	1,031,282 13	1·72
48·63	40,350,629 59	Transportation expenses	29,002,877 63	48·31
1·78	1,473,721 64	Miscellaneous operations	958,449 37	1·60
2·28	1,891,700 17	General expenses	1,566,459 65	2·61
— 0·84	—703,042 94	Transportation for investment		
100·00	$82,953,978 60	Total	$60,034,023 92	100·00

Summary of Revenues and Expenses.

Per Cent.	1920	Class	1919	Per Cent.
	$		$	
	66,695,398 80	Operating revenues	53,562,177 57	
124·37	82,953,978 60	Operating expenses	60,034,023 92	112·08
—24·37	—16,258,579 80	Net	—6,471,846 35	—12·08
100·00				100·00

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DESCRIPTION OF FREIGHT CARRIED YEARS ENDED DECEMBER 31

	1920			1919		
	Quantity	Tons	%	Quantity	Tons	%
Flour and other mill prod'ts	7,172,120 Sks.	358,606	2·47	8,978,640 Sks.	448,932	3·61
Wheat	66,182,167 Bus.	1,985,465	13·68	53,765,600 Bus.	1,612,968	12·97
Oats	43,083,177 "	732,414	5·05	28,423,706 "	483,203	3·88
Barley and other grains	25,294,857 "	282,344	1·95	9,184,268 "	227,873	1·83
Hay and straw		224,088	1·55		188,551	1·52
Fruit (fresh)		78,383	0·54		128,997	1·04
Vegetables and other agricultural products		85,424	0·59			
Horses	42,839 Hd.	36,413	0·25	46,974 Hd.	39,928	0·32
Cattle	343,720 "	206,232	1·42	418,157 "	250·894	2·02
Sheep and hogs	259,530 "	25,953	0·18	369,860 "	36,986	0·29
Other animal products		60,153	0·41		72,955	0·59
Coal and coke		2,631,343	18·14		2,174,207	17·48
Building material, stone, etc		770,273	5·31		355,911	2·85
Ores		177,725	1·23		181,794	1·46
Other mine products		97,328	0·67		130,395	1·05
Logs, lumber, etc	1,749,569 M.F.	2,624,353	18,09	1,928,698 M.F.	3,007,106	24·18
Cordwood	254,365 Cds.	356,111	2·46	329,138 Cds.	460,793	3·70
Pulpwood		551,259	3·80	(Inc. with Logs)		
Other forest products		41,406	0·29	(Inc. with Misc.)		
Immigrants' effects and household goods		97,526	0·67		91,367	0·73
Petroleum products		210,466	1·45		154,956	1·25
Paper, wood-pulp, etc		582,659	4·02	(Inc. with Misc.)		
Other manufactures		1,074,829	7·41		815,845	6·56
Merchandise and miscellaneous		1,213,658	8·37		1,575,653	12·67
Total tons		14,504,411	100·00		12,439,314	100·00

EARNINGS, EXPENSES AND NET EARNINGS

PER MILE OPERATED FOR YEARS ENDED DECEMBER 31

Year	Average Miles Operated	Earnings	Expenses	Net Earnings
		$ cts.	$ cts.	$ cts.
1918	9,542	5,005 29	4,661 76	+ 343 53
1919	9,636	5,558 55	6,230 18	− 671 63
1920	9,788	6,813 99	8,475 06	− 1,661 07

FIXED CHARGES PER MILE OF ROAD

	1920	1919	1918
Amount required per mile of road to pay fixed charges (including leased lines)	$2,484 67	$2,072 41	$1,893 60

PASSENGER, FREIGHT AND MISCELLANEOUS STATISTICS

COMPARED WITH PREVIOUS FISCAL YEAR

		1920	1919	+ Increase or − Decrease
Passenger traffic—				
Passengers carried (earning revenue)		5,468,352	4,925,547	+ 542,805
Passengers carried one mile		387,818,185	344,773,029	+ 43,045,156
Passengers carried one mile per mile of road		40,139	36,256	+ 3·883
Average distance carried		70·92	70·00	+ 0·92
Total passenger revenue	$	11,392,338·06	9,629,460 01	+ 1,762,878 05
Average amount received per passenger	$	2.08·33	1.95·500	+ 0.12·83
Average amount received per passenger per mile	Cts	2·938	2·793	+ 0·145
Total Passenger train earnings	$	14,532,036 96	11,811,612 85	+ 2,720,424 11
Passenger train earnings per train mile	$	1.63·314	1.53·575	+ 0.09·739
Freight traffic—				
Revenue tons carried		14,504,411	12,439,314	+ 2,065,097
Revenue tons carried one mile		4,687,603,090	4,046,023,363	+ 641,579,727
Revenue tons carried one mile per mile of road		485,169	425,472	+ 59,697
Average distance haul of one ton		323·18	325·26	+ 2·08
Total freight revenue	$	48,074,193 87	38,276,419 06	+ 9,797,774 81
Average amount received for each ton of freight	$	3.31·45	3.07·705	+ 0.23·75
Average revenue per ton per mile	Cts.	1·026	0·946	+ 0·080
Total freight train earnings	$	48,999,170 41	39,010,667 80	+ 9,988,502 61
Freight train earnings per train mile	$	3.63·871	3.34·877	+ 0·28·994
Train mileage—				
Mileage of passenger trains		6,992,016	5,847,229	+ 1,444,787
Mileage of freight trains		11,559,893	9,788,196	+ 1,771,697
Mileage of mixed trains		1,824,059	1,826,898	− 2,839
Mileage of special service trains		82,132	51,127	+ 31,005
Expenses per traffic train mile—				
Maintenance of way and structures	$	1.04·40	0.89·45	+ 0.14·95
Maintenance of equipment	Cts.	81·57	65·05	+ 16·52
Traffic expenses	Cts.	6·65	5·82	+ 0·83
Transportation expenses, rail	$	1.93·45	1.61·96	+ 0.31·49
Transportation expenses, water	Cts.		0·11	− 0·11
Miscellaneous operations	Cts.	7·10	5·34	+ 1·76
General expenses	Cts.	8·85	8·51	+ 0·34
Transportation for investment	Cts.	3·43		− 3·43
Total	$	3.98·59	3.36·24	+ 0.62·35

OPERATIONS OF ELECTRIC LINES NOT INCLUDED IN ABOVE STATEMENT

Electric line statistics—				
Passengers carried (earning revenue)		12,804,186	11,281,694	+ 1,522,492
Total passenger revenue	$	992,305 77	909,985 72	+ 82,320 05
Revenue tons carried		403,398	383,130	+ 20,268
Total freight revenue	$	295,344 65	280,489 07	+ 14,855 58

SUMMARY OF EQUIPMENT

	At December 31			
	1920	1919	1918	1917
Locomotives	906	850	788	735
Sleeping and dining cars	155	114	116	116
Passenger coaches	763	741	956	624
Baggage, mail and express cars	250	227	191	187
Business cars	25	26	25	22
Instruction cars	9	7	6	3
Freight, refrigerator and stock	40,660	37,457	31,828	29,489
Conductors' vans	552	438	426	443
Boarding, tool, auxiliary cars, steam shovels and snow equipment	1,950	1,768	1,670	1,517

MILES OF RAILWAY

The total mileage operated at the close of the fiscal year ended December 31, 1920, including lines owned and leased, was 9,868·9 miles, made up as follows:—

CENTRAL DISTRICT—WEST OF PORT ARTHUR

Rainy River Division—		
Port Arthur to Paddington Junction	435.1	
Twin City Junction to North Lake	58.1	
Emerson to South Junction	71.6	
Duluth Junction to River	1.5	
		566.3
Manitoba Division—		
Beach Junction to Victoria Beach and Grand Beach	72.6	
Grosse Isle to Hodgson	80.7	
St. James to Gypsumville	156.7	
Steep Rock Junction to Steep Rock	12.0	
Portage Junction to Emerson	63.4	
Morris to Somerset	62.2	
Carman Junction to Belmont	118.8	
Greenway to Deloraine	79.7	
Woodward Avenue to Dauphin	175.6	
Delta Junction to Delta	14.8	
Oakland to Amaranth	44.0	
Arizona Junction to Brandon	78.8	
Muir to McCreary Junction	70.4	
Brandon Junction to Carberry Junction	22.9	
Rossburn Junction to Ross Junction	190.6	
Hallboro to Beulah	75.0	
Ochre River to end of track	15.0	
Wroxton to Willowbrook	41.0	
De Lourdes	2.6	
Dundee	4.0	
Winnipeg transfer tracks	1.2	
Paddington Junction to Woodward avenue	4.2	
Totogan Junction to Totogan	1.8	
		1,388.0

PRAIRIE DISTRICT

Brandon Division—		
Brandon to C. N. Junction	220.8	
Maryfield to Radville	139.8	
Luxton to Estevan	24.9	
M. & B. Junction to Hartney Junction	38.0	
Belmont to Virden	91.9	
Radville to Bengough	45.2	
		560.1
Dauphin Division—		
Dauphin to Humbolt	247.3	
North Junction to Prince Albert	360.5	
Sifton Junction to Winnipegosis	20.7	
Thunderhill Junction to Preeceville	72.1	
Hudson Bay Junction to The Pas	87.5	
Melfort to St. Brieux	21.5	
Canora to Sturgis Junction	21.7	
		831.3
Regina Division—		
Regina to Saskatoon	160.0	
Junction with Riverhurst Sub. to Moosejaw Junction	86.3	
Gravelbourg Junction to Gravelbourg	78.6	
		324.9
Saskatoon Division—		
Saskatoon to East Prince Albert	89.3	
Prince Albert to Denholm	116.5	
Shellbrok to Big River	56.5	
Shelbrook to Big River	56.5	
Humbolt to North Battleford	147.6	
Delisle to Lucky Lake	79.2	
Elrose Junction to Alsask	148.1	
Dalmeny to Carlton	35.8	
Craven Junction to Craven	4.4	
		803.5

WESTERN DISTRICT

Edmonton Division—

Edmonton C.N. Terminals	11.1	
North Battleford to Lobstick Junction	331.0	
North Battleford to Turtleford	55.7	
Battleford Junction to Battleford	8.0	
Edmonton Junction to Stony Plains	19.4	
St. Albert to Athabaska	85.8	
Cardiff Junction to Cardiff	2.5	
Peace River Junction to Sangudo	33.4	
Vegreville Junction to Big Valley	125.3	
Warden to Brazeau	173.6	
Terminal Junction to Camrose Junction	45.8	
S. E. Junction to Alliance	60.3	
St. Paul Junction to St. Paul	125.5	
		1,072.4

Calgary Division—

Kindersley to Calgary	273.4	
Big Valley to Munson	36.0	
Medicine Hat to Cessford	46.4	
		365.8

PACIFIC DISTRICT

Pacific District—

Lobstick Junction to Chiplake	13.2	
Chiplake to Obed	77.5	
Obed to Snaring	59.1	
Snaring to Geikie	20.6	
Geikie to Red Pass Junction	34.8	
		205.2

Kamloops Division—

Red Pass Junction to Blue River	88.7	
Blue River to Kamloops	142.2	
Kamloops Junction to Boston Bar	125.6	
Boston Bar to New Westminster	118.7	
New Westminster to Vancouver	13.1	
Victoria to Patricia Bay	15.1	
		503.8

ONTARIO DISTRICT—EAST OF PORT ARTHUR

Toronto Division—

Toronto to Rosedale	3.8	
Rosedale to Parry Sound	145.2	
Todmorden to Trenton	105.0	
Trenton to Wallace	117.6	
York River to Howland	51.0	
Bessemer Junction to Bessemer	4.8	
Ormsby Junction to Coe Hill	7.2	
Belmar to Cordova	9.6	
Udney to Orillia	10.2	
Oshawa to Oshawa Town	2.4	
		456.8

Ottawa Division—

Brockville to Westport	44.4	
Harrowsmith to Kingston	18.6	
Rideau Junction to Hurdman	6.0	
Riverside to Ottawa Central Station	1.7	
Rideau Junction to Brent	157.8	
Picton to Trenton	30.6	
Rideau Junction to Trenton	139.7	
Yarker to Bannockburn	54.5	
		453.3

Nipissing Division—

Brent to Capreol	144.8	
Capreol to Foleyet	148.3	
Parry Sound to Capreol	127.0	
Algo to C.N. Junction	2.4	
Garson Junction to Garson	3.7	
Key Junction to Key Harbour	6.2	
Selwood Junction to Selwood	4.7	
Sudbury Junction to Sudbury	5.2	
		442.3

Superior Division—		
Foleyet to Hornepayne	148.1	
Hornepayne to Jellicoe	150.5	
Jellicoe to Port Arthur	147.9	
		446.5

QUEBEC DISTRICT

Montreal Division—		
Montreal to Lazard	7.3	
Lazard to Hurdman	104.3	
Montreal to Joliette	36.3	
Joliette to Hedleyville Junction	137.8	
Paradis to Rawdon	15.7	
Aldred Junction to Shawinigan Falls	3.8	
Rivière-à-Pierre Junction to Garneau Junction	39.7	
Joliette to Cushing Junction	61.6	
Rinfret Junction to Huberdeau	45.3	
Arundel to China Clay Mine	9.2	
St. Marc Quarries Spur	1.9	
		462.9
Saguenay Division—		
Quebec to Lake Edward	111.9	
Lake Edward to Chicoutimi	115.1	
Linton Junction to La Tuque	39.6	
Chambord Junction to St. Felicien	29.7	
Loretteville to Stoneham	10.0	
Valcartier to Clarke	5.4	
Montmorency Junction to Mont Mills	7.2	
		318.9

MARITIME DISTRICT

Bridgewater Division—		
Halifax to Southwestern Junction	4.4	
oSuthwestern Junction to Yarmouth	246.4	
Lunenburg to Mahone Junction	7.0	
Bridgewater Junction to Port Wade	92.5	
Caledonia Junction to Caledonia	22.1	
Liverpool Town to Rapid Falls	5.1	
Middleton Junction to Middleton	.6	
		378.1
Forward		.....
Forward		.....

MINNESOTA DISTRICT

Minnesota Division—		
Duluth to D.W. & P. Junction	3.6	
D.W. & P. Junction to North Junction via Loop	75.4	
South Junction to Ranier (River)	93.6	
		172.6
		9,742.7

ELECTRIC LINES IN PROVINCE OF ONTARIO

Port Dalhousie to Niagara Falls	17.5	
Thorold to Port Colborne	18.6	
Niagara Falls to Fallsview	4.6	
St. Catharines to Niagara-on-the-Lake	12.2	
Local lines to St. Catharines, Thorold and Merritton	8.7	
		61.6
Toronto to Woodbridge	12.0	
Toronto to Lambton	2.1	
Lambton to Guelph	46.3	
Local lines in Toronto	4.2	
		64.6
'Total mileage operated		9,868.9

LOCATED AS FOLLOWS:

Province of Nova Scotia	378.1
Province of Quebec	725.0
Province of Ontario	2,324.6
Province of Manitoba	1,995.7
Province of Saskatchewan	2,283.5
Province of Alberta	1,415.2
Province of British Columbia	530.5
State of Minnesota	216.3
Total mileage	9,868.9
Average miles operated for fiscal year	9,788

SUMMARY OF MILEAGE

Mileage owned by Canadian Northern Railway System			9,372.0
Joint running rights—			
Toronto to Rosedale	G.T.R.	3.8	
Grand Trunk Crossing to Orillia	C.P.R.	2.8	
Harowsmith to Kingston	C.P.R	18.6	
Riverside to Ottawa Union Station	G.T.R.	1.7	
Current River to Port Arthur	C.P.R.	2.1	
C.N. Junction to Regina	C.P.R.	0.8	
Chiplake to Obed	G.T.P.	77.5	
Snaring to Geikie	G.T.P.	20.6	
New Westminster to Vancouver	Gt. Nor.	13.1	
D.W. & P. Junction to Duluth	Nor. Pac. C. St. P. M. & O.	3.6	
Halifax to Southwestern Junction	C.G.R.	4.4	
Middleton Junction to Middleton	D.A.R.	.6	
			149.6
Lines leased—			
Northern Pacific in Manitoba			347.3
Total mileage operated			9,868.9

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CONSTITUENT AND SUBSIDIARY COMPANIES COMPRISED IN THE CANADIAN NORTHERN RAILWAY SYSTEM

CONSTITUENT COMPANIES

The Canadian Northern Railway Company.
The Canadian Northern Ontario Railway Company.
The Canadian Northern Quebec Railway Company.
Mount Royal Tunnel and Terminal Company, Limited.
Canadian Northern Pacific Railway Company.
Canadian Northern Alberta Railway Company.
Canadian Northern Western Railway Company.
The Canadian Northern Saskatchewan Railway Company.
The Canadian Northern Manitoba Railway Company.
Duluth, Winnipeg and Pacific Railway Company.
Duluth, Winnipeg and Pacific Railroad Company.
Duluth, Rainy Lake and Winnipeg Railway Company.
Central Ontario Railway.
The Halifax and South Western Railway Company.
The Bay of Quinté Railway Company.
The Irondale, Bancroft and Ottawa Railway Company.
The Marmora Railway and Mining Company.
The Northern Consolidated Holding Company, Limited.
The Quebec and Lake St. John Railway Company.
The Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company.
The Minnesota and Manitoba Railroad Company.
The Bessemer and Barry's Bay Railway Company.
The Toronto, Niagara and Western Railway Company.
The James Bay and Eastern Railway Company.
The St. Charles and Huron River Railway Company.
The Toronto Eastern Railway Company.
The Toronto Suburban Railway Company.
The Niagara, St. Catharines and Toronto Railway Company.
The Niagara, St. Catherines and Toronto Navigation Co., Ltd.
Canadian Northern System Terminals (Limited).
The Minnesota and Ontario Bridge Company.
The Lake Superior Terminals Company, Limited.

SUBSIDIARY COMPANIES

Canadian National Telegraph Company.
The Great North Western Telegraph Company of Canada.
The Winnipeg Land Company, Limited.
St. Boniface Western Land Company.
The Canadian Northern Railway Express Company, Limited.
Canadian Northern System Terminals, (Limited.)
The Minnesota and Ontario Bridge Company.
Canadian National Express Company.
Canadian Northern Steamships, Limited.
The Niagara, St. Catharines and Toronto Navigation Company, Limited.
Canadian Northern Rolling Stock, Limited.
The Imperial Rolling Stock Company, Limited.
Canadian National Transfer Company, Limited.
Toronto Dwellings, Limited.
Canadian Northern Realties, Limited.
Federal Properties, Limited.

CONTROLLED COMPANIES

Canadian Government Merchant Marine, Limited.

CANADIAN NORTHERN RAILWAY SYSTEM

Loans from Dominion Government with interest accrued for year ended December 31, 1920.

Loan	Amount outstanding	Interest due per Accounts rendered to November 1, 1920
Advances under 1911 legislation	$ 2,396,099 68	
Advances under 1914 legislation	5,294,000 02	
Advances under 1915 legislation	10,000,000 00	$ 1,000,000 00
Advances under 1916 legislation	15,000,000 00	3,913,643 83
Advances War Measures Act, 1916	497,566 80	36,806 29
Advances War Measures Act, 1918	5,700,000 00	780,041 09
Advances under 1917 legislation	25,000,000 00	4,314,273 27
Advances under 1918 legislation	25,000,000 00	3,215,794 71
Advances under 1919 legislation	35,000,000 00	2,414,682 67
Advances under 1920 legislation	42,704,865 62	646,494 32
Equipment loans under Chapter 38, 1918, Vote 96, 1919, and Vote 115, 1920	47,773,590 92	3,112,879 01
	$214,366,123 04	$19,434,615 19

Summary

Amount outstanding December 31, 1920	$214,366,123 04
Interest due as per accounts rendered to November 30, 1920	19,434,615 19
	$233,800,738 23

CANADIAN NATIONAL RAILWAYS—CANADIAN NORTHERN RAILWAY SYSTEM

Equipment Notes Outstanding December 31, 1920

Series	Principal Outstanding	Annual Payment Principal	Annual Payment Interest
Imperial Rolling Stock Company, Limited—			
Series "A-1"	$ 188,000 00	$ 188,000 00	$ 4,230 00
" "B-1"	150,000 00	150,000 00	5,073 75
" "C-1"	330,000 00	220,000 00	12,375 00
" "D-1"	495,000 00	330,000 00	18,562 50
" "E-1"	420,000 00	210,000 00	16,537 50
" "F-1"	1,060,000 00	420,000 00	42,975 00
" "G-1"	275,000 00	110,000 00	11,137 50
" "H-1"	230,000 00	80,000 00	10,500 00
" "K-1"	845,000 00	210,000 00	39,625 00
" "L-1"	788,000 00	132,000 00	37,750 00
Canadian Northern Rolling Stock, Co., Limited—			
Series "A"	3,500,000 00	450,000 00	210,000 00
" "B"	6,000,000 00	750,000 00	348,750 00
" "C"	6,375,000 00	750,000 00	371,250 00
" "D"	6,750,000 00	750,000 00	393,750 00
Canadian National Rolling Stock Company—			
Series "E"	14,611,000 00	1,000,000 00	997,500 00
	$42,017,000 00	$5,750 000 00	$2,520,016 25

CANADIAN NATIONAL RAILWAYS—CANADIAN NORTERN RAILWAY SYSTEM

STATEMENT of Securities Outstanding, showing Securities guaranteed by Dominion Government Securities Guaranteed by Provincial Governments, Securities unguaranteed, Maturities of all issues, Annual Fixed Charges, etc., at December 31, 1920.

	Date of Maturity	Total Issue	Held by Public	Pledged as Collateral	Annual Interest
		$ cts.	$ cts.	$ cts.	$ cts.
Guaranteed by Dominion Government—					
Canadian Northern Railway	July 10, 1953	9,359,996 72	9,359,996 72		280,799 86
3% 1st Mortgage Debenture Stock					
3½% 1st Mortgage Debenture Stock	July 20, 1958	7,896,588 26	7,896,588 26		276,380 46
4% 1st Mortgage Deb. Stock and Bonds	Sept. 1, 1934	44,866,667 33	17,060,333 33	27,806,334 00	1,794,666 66
7% 20-year Sinking Fund Gold Debenture Bonds	Dec. 1, 1940	25,000,000 00	25,000,000 00		1,750,000 00
Canadian Northern Alberta Railway—					
3½% 1st Mortgage Debenture Stock	April 1, 1962	3,569,996 86		3,569,996 86	124,949 88
3½% 1st Mortgage Debenture Stock	May 4, 1960	3,149,998 66	3,149,998 66		110,249 96
Canadian Northern Ontario Railway —					
3½% 1st Mortgage Debenture Stock	May 19, 1961	35,770,000 00	31,229,996 87	1,540,003 13	1,251,950 00
		129,613,247 83	96,696,913 84	32,916,333 99	5,588,996 82
Guaranteed by Province of Ontario—					
Canadian Northern Ontario Railway—					
3½% 1st Mortgage Debenture Stock (1938)	June 30, 1938	6,724,015 04	6,724,015 40		235,340 54
3½% 1st Mortgage Debenture Stock (1936)	July 10, 1936	1,135,982 19	1,135,982 19		39,759 38
		7,859,997 59	7,859,997 59		275,099 92
Guaranteed by Manitoba Government—					
Canadian Northern Railway—					
4% Consolidated Debenture Bonds	June 30, 1930	10,784,046 66	10,784,046 66		431,361 87
4% Ontario Division Bonds	June 30, 1930	5,666,746 66	5,666,746 66		226,669 86
4½% Ontario Division Bonds	June 30, 1930	78,840 00	78,840 00		3,547 80
4% Winnipeg Terminal Bonds	July 1, 1939	3,000,000 00	3,000,000 00		120,000 00
4% 1st Mortgage Debenture Stock	June 30, 1930	4,319,998 86	2,859,998 87	1,460,000 00	172,799 90
4½% Canadian Northern Manitoba Railway Bonds	June 30, 1930	160,680 00		160,680 00	7,230 60
4% Sifton Branch Line Bonds	Feb. 1, 1929	1,137,340 00	1,137,340 00		45,493 60
4% Gilbert Plains Branch Bonds	Nov. 1, 1930	2,433 33	2,433 33		97 33
4% Manitoba & S. E. Railway Bonds	Feb. 1, 1920	512,460 00	512,460 00		20,498 40
		25,662,545 51	24,041,865 52	1,620,680 00	1,027,699 36

CANADIAN NATIONAL RAILWAYS—CANADIAN NORTHERN RAILWAY SYSTEM—*Concluded*

STATEMENT of Securities Outstanding, etc.—*Concluded*

	Date of Maturity	Total Issue	Held by Public	Pledged as Collateral	Annual Interest
		$ cts.	$ cts.	$ cts.	$ cts.
Guaranteed by Saskatchewan Government—					
Canadian Northern Railway—					
4% 1st Mortgage Debenture Stock and Bonds	Jan. 23, 1939	13,709,399 99	8,029,999 99	5,679,400 00	548,375 98
Canadian Northern Saskatchewan Railway—					
4½% 1st Mortgage Debenture Stock and Bonds	Dec. 19, 1943	1,174,813 33	.....	1,174,813 33	52,866 60
4½% 1st Mortgage Debenture Stock	Dec. 19, 1943	486,666 66	.....	486,666 66	21,900 00
		15,370,879 98	8,029,999 99	7,340,879 99	623,142 58
Guaranteed by Alberta Government—					
Canadian Northern Railway—					
4% 1st Mortgage Debenture Stock	Feb. 25, 1939	9,726,364 26	5,586,665 66	4,139,698 60	389,054 56
Canadian Northern Western Railway—					
4½% 1st Mortgage Debenture Stock and Bonds	Feb. 16, 1942	6,424,000 00	6,424,000 00	.....	289,080 00
4½% 1st Mortgage Debenture Stock and Bonds	Oct. 22, 1943	2,799,997 73	2,799,997 73	.....	125,999 90
		18,950,361 99	14,810,663 39	4,139,698 60	804,134 46
Guaranteed by British Columbia Government—					
Canadian Northern Pacific Railway—					
4% 1st Mortgage Debenture Stock	April 2, 1950	20,999,997 59	16,412,001 13	4,587,996 46	839,990 90
4% Terminal Debenture Stock	April 2, 1950	8,614,000 00	8,614,000 00	.....	387,630 00
4½% Branch Lines Stock	Aptil 2, 1950	5,543,527 54	.....	5,543,527 54	249,458 74
4½% Second Charge Stock	April 2, 1950	4,999,998 73	.....	4,999,998 73	224,999 94
		40,157,523 86	25,026,001 13	15,131,522 73	1,702,079 58
Total Provincial Guarantees		108,001,308 93	79,768,527 61	28,232,781 32	4,432,155 90
Unguaranteed Securities—					
Canadian Northern Railway—					
4% Perpetual Consolidated Debenture Stock	Perpetual	62,154,122 33	41,943,019 40	17,211,102 93	2,486,164 88
4% 1st Mortgage Pas Mission Bonds	April 15, 1939	880,000 00	.....	880,000 00	35,200 00
4½% 1st Mortgage Gunflint Bonds	June 30, 1930	641,400 00	.....	641,400 00	28,863 00
4½% Prince Albert Branch Bonds	June 30, 1930	518,000 00	300,000 00	218,000 00	23,310 00
Canadian Northern Ontario Railway—					
4% Perpetual Consolidated Debenture Stock	Perpetual	12,658,910 51	9,083,628 47	3,575,282 05	506,356 42
Central Ontario Railway—					
5% 1st Mortgage Bonds	Jan. 1, 1931	833,660 00	833,660 00	.....	41,683 00
Bay of Quinte Railway—					
5% 1st Mortgage Bonds	Jan. 2, 1927	780,000 00	780,000 00	.....	39,000 00

Canadian Northern Quebec Railway—					
4% Perpetual Debenture Stock	Perpetual	5,435,127 39	5,250,369 26	184,758 13	217,405 09
Great Northern Railway of Canada—					
4% Bonds	Oct. 1, 1931	3,505,750 00	3,505,750 00		140,230 00
Quebec and Lake St. John Railway—					
4% 1st Mortgage Debenture Stock	Perpetual	4,486,813 60	4,359,014 94	127,798 67	179,472 54
5% 1st Mortgage Bonds	Dec. 31, 1924	31,390 00		31,390 00	1,569 50
Duluth, Winnipeg & Pacific Railway—					
4% 1st Mortgage Stock	June 1, 1939	8,062,913 27	7,011,323 93	1,051,589 34	322,516 53
Halifax and South Western Railway—					
3½% First Mortgage Bonds	Sept. 30, 1942	5,663,666 66	4,447,000 00	1,216,666 66	198,228 32
Niagara, St. Catharines and Toronto Railway					
5% 1st Mortgage Bonds	Nov. 1, 1929	1,454,000 00	1,098,000 00	356,000 00	72,700 00
5% 2nd Mortgage Bonds	Nov. 1, 1929	536,500 00		536,500 00	26,825 00
Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co.					
4% 1st Mortgage Stock	July 1, 1936	5,019,539 86	5,019,539 86		200,781 59
Mount Royal Tunnel and Terminal Co., Ltd.—					
5% 1st Mortgage Bonds	April 15, 1970	11,346,146 66	2,153,013 33	9,193,133 33	*571,589 99
James Bay and Eastern Railway—					
5% 1st Mortgage Bonds	Sept. 1, 1945	300,000 00		300,000 00	15,000 00
Minnesota and Manitoba Railway—					
4% 1st Mortgage Bonds	June 30, 1931	349,000 00	349,000 00		13,960 00
Toronto Suburban Railway—					
4½% 1st Mortgage Debenture Stock	July 15, 1961	2,628,000 00	2,628,000 00		118,260 00
Land Securities—					
Canadian Northern Railway—					
4% Land Grant Bonds (1909)	July 1, 1938	1,057,526 72	1,057,526 72		42,301 06
5% Land Mortgage Debentures	June 1, 1923	16,921,886 66	7,188,553 34	9,733,333 32	846,094 33
Total unguaranteed		145,264,353 66	100,007,399 25	45,256,954 43	6,127,511 25
Grand total		382,878,910 42	276,472,840 70	106,406,069 72	16,148,663 97

In addition to the above the following are authorized and issued:—

(*a*) Canadian Northern Railway—			
5% Income Charge Convertible Debenture Stock	24,999,400 00	24,139,007 40	860,392 60
(*b*) Imperial Rolling Stock Co. Ltd., Equipment Trusts	4,781,000 00		
Canadian Northern Rolling Stock Co. Ltd., Equipment Trusts	22,625,000 00		
Canadian National Rolling Stock Co. Equipment Trusts	14,611,000 00		

Land Grants—

C.N.Q. Ry. Land grant 391,460 acres	$1,174,380 00
C.N.O. Ry. Land grant 2,000,000 acres	4,536,931 00
	$5,711,311 00

*Note.—Interest on bonds redeemed for Sinking Fund has to be paid.

CANADIAN GOVERNMENT RAILWAYS

REPORT OF W. A. KINGSLAND, GENERAL MANAGER, FOR NINE MONTHS ENDED DECEMBER 31, 1920.

Intercolonial Railways

CAPITAL ACCOUNT

The cost of the road and equipment on March 31, 1920		$140,991,709 07
The expenditure during the nine months ended December 31, 1920		2,752,984 40
Making the total cost on December 31, 1920		$143,744,693 47

The gross earnings and working expenses for the nine months ended December 31, 1920, compare as follows—

Gross earnings—I.C.R. rail account		$ 23,633,500 74
Water account		23,129 99
		$23,656,630 73
Working expenses—I.C.R. rail account	$26,651,758 09	
Water account	52,889 78	
	$26,704,647 87	
New Brunswick and Prince Edward Island Railway (interest)	3,540 00	
		$ 26,708,187 87
Working expenses over gross earnings (efficiency)		$ 3,051,557 87

Revenue

The earnings per train mile compare as follows:—

1919-1920	3.43
Nine months ended December 31, 1920	3.74

Working Expenses

The averages, not including water lines,compare with those of last year, as follows:—

Per mile run by engine in 1919-20	2.75
Per mile run by engine nine months ended December 31, 1920	2.88
Per mile run by train 1919-20	3.74
Per mile run by train nine months ended December 31, 1920	3.74

The mileage of the railway for the nine months ended December 31, 1920, was 1,670.38 miles, including Vale Railway (5.96 miles), N.B. and P.E.I. Railway (36.05 miles) and International Railway (105.73 miles).

Stores

The value of general stores in the Canadian Government Railways carried over from the previous years was	$ 8,146,993 24
The value of stores purchased and charged from other departments was	25 039,389 18
Total of	$ 33,186 382 42
The value of stores used and sold	23,428,962 02
Balance of general stores on hand December 31, 1920	$ 9,757,420 40

Prince Edward Island Railway

The length of railway in operation at December 31, 1920, was 275.99 miles. The gauge is 3 feet 6 inches. On 61.00 miles of railway there is multiple rail laid for standard gauge.

The cost of road equipment to March 31, 1920		$ 12,749,112 00
The expenditure during nine months ended December 31, 1920		56,924 27
Making the total cost on December 31, 1920		$ 12,806,036 27
Gross earnings		$ 750,973 63
Working expenses		1,329,349 19
Deficiency		$ 578,375 56

New Brunswick and Prince Edward Island Railway

The cost of road and equipment to March 31, 1920, was	$	529,381 32
The expenditure during nine months ended December 31, 1920, was		88,933 54
Making the total cost on December 31, 1920	$	618,314 86

An amount of $3,540 was paid as interest.

This railway is included in the operation of the Intercolonial railway.

International Railway of New Brunswick

The cost of road and equipment to March 31, 1920, was	$	2,858,394 69
The expenditure during nine months ended December 31, 1920, was		37,959 74
Making the total cost on December 31, 1920	$	2,896,354 43

This railway is included in the operation of the Intercolonial Railway.

National Transcontinental Railway

This line extends from Moncton to Winnipeg and is 2,006.73 miles in length, which includes the Grand Trunk Pacific Branch Line from Fort William to Superior Junction.

The cost of the National Transcontinental Railway to March 31, 1920, was		$166,698,645 64
Expenditure during nine months ended December 31, 1920		1,113,921 91
Making the total cost on December 31, 1920		$167,812,567 55
The gross earnings and working expenses to December 31, 1920, compare as follows—		
Gross earnings	$	11,853,128 70
Working expenses (including $450,000 rental Lake Superior Branch)		14,579,155 76
Deficiency	$	2,726,027 06

Moncton and Buctouche Railway

This railway extends from Moncton to Buctouche and is 29.93 miles in length.

The expenditure on capital accounts to March 31, 1920	$	100,031 53
The expenditure during nine months ended December 31, 1920		49,584 22
Making the total cost on December 31, 1920	$	149,615 75
Gross earnings	$	47,251 95
Working expenses		76,312 92
Deficiency	$	29,060 97

Salisbury and Albert Railway

This railway extends from Salisbury to Albert and is 44.77 miles in length.

The expenditure on capital account to March 31, 1920	$	127,782 71
The expenditure during nine months ended December 31, 1920		87,606 39
Making the total cost to December 31, 1920	$	215,389 10
Gross earnings	$	59,187 46
Working expenses		126,934 16
Deficiency	$	67,746 70

Elgin and Havelock Railway

This railway extends from Petitcodiac to Havelock and from Petitcodiac to Elgin and is 26.11 miles in length.

The expenditure on capital account to March 31, 1920	$	71,440 22
The expenditure during nine months ended December 31, 1920		13,233 93
Making the total cost on December 31, 1920	$	84,674 15
Gross earnings	$	14,776 51
Working expenses		53,992 81
Deficiency	$	39,216 30

St. Martin's Railway

This railway extends from Hampton to St. Martins and is 28.73 miles in length.

The expenditure on capital account to March 31, 1920	$	124,949 23
The expenditure during nine months ended December 31, 1920		92,364 42
Making the total cost on December 31, 1920	$	217,313 65
Gross earnings	$	22,070 77
Working expenses		62,714 39
Deficiency	$	40,643 62

York and Carleton Railway

This railway extends from Cross Creek to Stanley and is 5.46 miles in length.

The expenditure on capital account to March 31, 1920	$	21,208 94
The expenditure during nine months ended December 31, 1920		838 91
Making the total cost on December 31, 1920	$	22,047 85
Gross earnings	$	5,687 38
Working expenses	$	22,646 06
Deficiency	$	16,958 68

Quebec and Saguenay Railway

This railway extends from St. Joachim to Murray Bay and is 62.31 miles in length.

The expenditure on capital account to March 31, 1920	$	253,613 00
The expenditure during nine months ended December 31, 1920		333,816 50
Making the total cost on December 31, 1920	$	587,429 50
Gross earnings	$	30,890 99
Working expenses	$	44,598 93
Deficiency	$	13,707 94

Caraquet and Gulf Shore Railway

This railway extends from Gloucester Junction to Tracadie and is 80.01 miles in length.

The expenditure on capital account for nine months ended December 31, 1920	$	79,600 00
Gross earnings	$	72,725 29
Working expenses		106,121 41
Deficiency	$	33,396 12

Lotbinière and Megantic Railway

This railway extends from Lyster to Deschaillons and is 29.59 miles in length.

The expenditure on capital account for nine months ended December 31, 1920	$	9,840 00
Gross earnings	$	22,001 27
Working expenses	$	43,171 86
Deficiency	$	21,170 59

Cape Breton Railway

This railway extends from Point Tupper to St. Peters and is 30.64 miles in length.

Gross earnings	$ 9,655 66
Working expenses	24,432 31
Deficiency	$ 14,776 65

Hudson Bay Railway

This railway extends from The Pas, a distance of 243 miles.

Gross earnings	$ 97,652 15
Working expenses	149,237 32
Deficiency	$ 51,588 17

St. John and Quebec Railway

The gross earnings and working expenses for nine months ended December 31, 1920, compare as follows:—

Gross earnings	$ 171,717 21
Working expenses	360,009 13
Deficiency	$ 188,291 92
In addition to the above amount (40 per cent of gross earnings) charged to rental was	$ 84,106 98
Total deficit	$ 272,398 90

Statement Showing Miscellaneous Rolling Stock Charged Against Rolling Stock Vote.

For nine months ended December 31, 1920—		
Locomotives		$ 8,820 60
Freight cars—		
Auto cars (converted)		24,101 55
Passenger—		
Excursion cars (converted)	$ 7,705 12	
Baggage (converted)	11,770 13	
Parlour cafe cars (converted)	16,257 36	
Lunch counter cars (converted)	883 95	
Buffet parlour cars (converted)	1,060 00	
	$37,676 53	
Less credit baggage and smokers (converted)	7,323 53	
		30,353 00
Work equipment		412,167 94
Miscelaneous		318,864 49
		$794,307 58

Fatal Accidents

The number of fatal accidents on the Canadian Government Railways amounted to fifty, of which twenty-seven were employees three passengers and twenty others, the railways being exonerated in forty-seven cases.

CANADIAN GOVERNMENT

STATEMENT of Averages, Nine Months

		Intercolonial Railway	P.E. Island Railway	National Transcontin'tl Railway	Moncton &Buctouche Railway	Elgin and Havelock Railway
1	Mileage of railway	1,669.54	276.29	2,006,58	29.93	26 11
2	Total engine mileage	8,211,100	379,245	3,489,972	17,203	14,668
3	Total train mileage	6,315,429	302,317	2,967,952	15,362	12,783
4	Total car mileage	105,594,280	2,312,750	80,327,572	100,686	36,601
	Earnings—	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
5	Transportation—rail	22,282,356 17	747,366 01	11,712,123 06	47,251 95	14,776 51
6	" water	23,129 99	..	...	...	....
7	Incidentals	1,351,144 57	3,607 62	141,005 64	..	....
	Total	23,656,630 73	750,973 63	11,853,128 70	47,251 95	14,776 51
	Operating Expenses—					
9	Transportation—rail	26,655,298 09	1,329,349 19	14,579,155 76	76,312 92	53,992 81
10	Transportation—water	52,889 78	...	...	...	...
11	Total	26,708,187 87	1,329,349 19	14,579,155 76	76,312 22	53,992 81
	Ratio of Earnings to Gross Earnings—	p.c.	p.c.	p.c.	p.c.	p.c.
12	Earnings from transportation rail	94.19	99.52	98.81	100.00	100.00
13	" " water	0.10	...	...	...	...
14	" Incidentals	5.71	0.48	1.19	...	...
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
15	Earnings per mile of railway	14,155 70	2,718 06	5,907 13	1,578 75	565 93
16	" engine mile	2 88	1 98	3 40	2 75	1 01
17	" train mile	3 74	2 48	3 99	3 08	1 16
18	" car mile	22 38	32 47	14 76	46 93	40 37
		p.c.	p.c.	p.c.	p.c.	p.c.
19	Ratio of expenses to gross earnings—rail	112.79	177.02	123.00	161.50	365.40
20	" " " water	228.66	...	...	...	...
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
21	Expenses per train mile	4.22	4.40	4.91	4 97	4 22
22	Expenses per mile of railway	15,965 65	4,811 43	7,265 67	2,549 71	2,067 90
23	Repairs of locomotives	1,963,208 79	65,273 84	982,021 78	2,916 30	2,098 33
24	" freight cars	1,531,295 85	27,218 54	1,383,904 10	1,053 03	426 44
25	" passenger cars	981,394 46	38,743 26	448,560 69	2,112 65	622 03
26	Cost of repairs per locomotive	4,641 15	2,417 55	4,767 10	1,458 15	2,098 33
27	" " freight car	113 86	43 55	120 80	105 31	42 64
28	" " passenger car	1,575 27	2,152 40	1,958 78	1,056 32	622 03

(a) Quebec & Saguenay track mileage 62.80, average for 3 months operated 20.93.
(b) Caraquet & Gulf Shore track mileage 84 00, average for 7 months operated 65 33.
(c) Cape Breton track mileage 31.00, average for 6 motnhs operated 20.67.

SESSIONAL PAPER No. 20

RAILWAYS

Ending December 31, 1920.

	Hampton and St. M. Railway	York and Carlton Railway	Salisbury and Albert Railway	Quebec and Saguenay Railway	Lotbin're and Megantic Railway	Cara. an l G. S. Railway	Cape Breton Railway	Hudson Bay Railway	Canadian Government Railway	St. John and Quebec Railway	
	28 73	6.25	44.77	(a) 20 93	29 55	b 65 [illegible]	20 67	243 00	4,467 68	172 07	1
	15.363	10.119	36.258	9.737	16.164	37,178	11,515		12,248,522	124,314	2
	14,037	5,688	32,657	9,567	14,220	[illegible]	9,796		9.733,506	116 [illegible]	3
	49,494	13,719	195,133	70,070	60,951	220,660	[illegible]		[illegible]	[illegible] 44[illegible]	4
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
	22,070,77	5,687 38	59,187 46	30,890 99	22,001 27	72,725 29	9,655.66	97,652 15	25,123,744 67		5
									23,129 [illegible]	171,717 21	6
									1,495,757 83		7
	22,070 77	5,687 38	59,187 46	30,890 99	22,001 27	72,725 29	9,655 66	97,652 15	36,642,632 49	171,717 21	8
	62,714 39	22,646 06	126,934 16	44,598 93	43,171 86	106,121 41	24,432 31	149,237 32	43,273,965 21	444,116 11	9
									52,889 78		10
	62,714 39	22,646 06	126,934 16	44,598 93	43,171 86	106,121 41	24,432 31	149,237 32	43,326,854 99	444,116 11	11
	100 00	100 00	100 00	100 00	100 00	100 00	100 00	100 00	95 86	100 00	12
									0 06		13
									4 08		14
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
	768 21	909 98	1,322 03	1,475 92	744 54	1,113 20	467 13	401 86	8,196 54	997 95	15
	1 41	0 56	1 63	3 17	1 36	1 96	0 84		2 98	1 48	16
	1 57	1 00	1 81	3 23	1 55	2 16	0 99		(e) 3 75	1 48	17
	44 59	41 46	30 33	44 09	36 10	32 96	34 39		19 32	24 66	18
	p.c	p.c.	p.c	p.c.	p.c.	p.c.	p.c	p c.	p.c.	p.c.	
	284 15	298.18	214 46	144.38	196 22	145.92	253 04	152.83	118 17	258 [illegible]	19
									228 66		20
	$ cts.	$ cts.	$ cts.	$ cst.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
	4 47	3 98	3 89	4 66	3 04	3 15	2 49	(d)	(e) 4 43	3 82	21
	2,182 89	3,623 37	2,835 25	2,130 80	1,460 98	1,624 39	1,182 02	614 15	9,686 00	2,581 02	22
	3,095 93	1,382 86	5,582 93	2,170 90	2,244 10	6,067 71	1,595 74	6,917 84	3,044,577 05	16,344 70	23
	663 21	90 10	2,702 80	835 55	420 72	3,130 27	161 65	336 76	2,952,239 05	87 64	24
	688 77	304 73	1,991 26	1,668 08	1,855 12	3,085 18	991 61		1,482,017 84	367 08	25
	3,095 93	1,382 86	2,791 46	547 72	1,122 05	1,516 93	1,595 74	(d)	4,566 91	1,816 08	26
	82 90	12 87	40 95	33 42	42 07	44 72	10 78		114 63		27
	344 38	304 73	995 63	278 01	927 56	514 20	991 61		1,659 59 (f)		28

(d) No engine, train and car mileage returned for Hudson Bay railway.
(e) Does not include Hudson Bay reailway.
(f) Included in Intercolonial Railway.

CANADIAN GOVERNMENT

SUMMARY OF THE PASSENGER AND FREIGHT TRAFFIC OF THE CANADIAN GOVERNMENT

		Intercolonial Railway	Prince Edward Island Railway	Transcontinental Railway	M. & B. Railway	S. & A Railway	E. & H Railway
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1	Passenger traffic	5,790,154 75	224,781 63	2,143,995 24	19,480 45	8,938 50	4,429 14
2	Freight traffic	15,306,360 92	476,324 46	9,422,650 04	28,024 23	53,007 94	10,789 73
3	Mails and express	1,185,840 50	46,259 92	145,477 78	1,489 98	2,974 91	1,265 54
4	Miscellaneous	110,692 67	18,991 25	78,404 98	169 31	157 50	.....
5	Total	22,393,048 84	766,357 26	11,790,528 04	49,163 97	65,078 85	16,484 41
6	Ocean service	23,129 99	.....	.....	.....	.....	.....
7	Total	22,416,178 83	766,357 26	11,790,528 04	49,163 97	65,078 85	16,484 41
8	Income account, rental	less 12,259 65	681 14	less 91,436 94	158 38	164 31	.....
9	Total	22,403,919 18	767,038 40	11,699,091 10	49,322 35	65,243 16	16,484 41
10	Hire of equipment	1,252,711 55	less 16,064 77	154,037 60	less 2,070 40	less 6,055 70	less 1,707 90
11	Net revenue	23,656,630 73	750,973 63	11,853,128 70	47,251 95	59,187 46	14,776 51
	Passenger Statement						
	Local traffic—						
12	Number of passengers	3,802,265	283,867	1,056,507	27,742	10,918	12,575
13	Mileage	146,730,903	6,848,899	34,485,499	645,856	263,447	136,022
	Through traffic—						
14	Number of passengers	278,056	37,041	111,999	..	16	3
15	Mileage	57,393,719	1,884,580	45,667,460		580	39
16	Total number of passengers	4,080,321	320,908	1,168,506	27,742	10,934	12,578
17	Total mileage	204,124,622	8,733,479	80,152,959	645,856	264,027	136,061
	Freight Statement						
	Local traffic—						
18	Tons	2,709,831	50,764	641,132	17,436	44,105	9,022
19	Mileage	507,318,490	2,079,138	187,478,404	407,557	1,145,152	106,204
	Through traffic—						
20	Tons	3,137,432	138,751	3,095,481	1,524	14,687	855
21	Mileage	912,024,176	8,044,547	967,526,222	43,963	382,569	11,241
22	Total tons	5,847,363	189,515	3,736,613	18,960	58,792	9,877
23	Total mileage	1,419,342,676	10,123,685	1,155,004,626	451,520	1,527,721	117,445

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RAILWAYS

Railway and St. John and Quebec Railway From April 1 to December 31, 1920.

St. Martins Railway	York and Carleton Railway	Cape Breton Railway	C & G S. Railways	Q. & S Railway	L. & M. Railway	Hudson Bay Railway	Canadian Government Railway	St. John and Quebec Railway	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
5,387 93	2,609 95	4,529 56	23,929 40	8,444 10	4,022 43	16,892 46	8,257,054 85	75,160 74	1
17,717 57	4,304 05	4,557 56	51,215 79	19,327 23	18,169 54	79,632 69	25,492,081 75	128,269 21	2
886 94	113 28	723 54	1,521 35	3,527 45	566 40		1,390 647 59	5,933 65	3
115 03	. .	. .	125 00	110 00	. .	1,127 00	209,892 74	809 36	4
24,107 47	6,486 28	9,810 66	76,791 54	31,409 09	22,758 37	97,652 15	35,349,676 93 23,129 99	210,172 96	5
24,107 47	6,486 28	9,810 66	76,791 54	31,409 09 less 518 10	22,758 37	97,652 15	35,372,805 92 less 103,210 86	210,172 96 94 51	7 8
24,107 47 less 2,036 70	6,486 28 less 798 90	9,810 66 less 155 00	76,791 54 less 4,066 25	[illegible]	22,758 37 less 757 10	97,652 15	35,269,596 06 1,373,036 43	210,267 47 less 38,550 26	9 10
22,070,77	5,687 28	9,655 66	72,725 29	30,890 99	22,001 27	97,652 15	36,642,632 49	171,717 21	11
9,976	9,685	5,786	14,290	3,114	8,040		5,244,159	66,117	12
165,862	52,746	121,514	593,356	59,652	112,150		190,215,906	2,330,130	13
4	4	368	22	3,777	133		431,423	1,226	14
120	26	10,941	1,238	74,332	3,014		105,136,649	88,213	15
9,980	9,689	6,148	14,312	6,891	8,173		5,675,582	67,343	16
165,982	52,772	132,455	594,594	233,984	115,764		295,352,555	2,418,343	17
14,966	6,001	2,706	18,447	1,091	7,064		[illegible]	33,294	18
259,161	35,508	69,069	914,071	40,695	73,768		699,927,217	1,272,120	19
332	1,348	92	353	9,865	7,210		6,408,030	52,978	20
9,754	8,069	2,858	20,108	520,337	110,726		1,[illegible],704,400	2,629,264	21
15,298	7,349	2,798	18,800	10,956	14,274		9,930,595	86,272	22
268,735	43,577	71,927	934,179	561,032	184,494		2,588,631,617	3,901,384	23

CANADIAN GOVERNMENT RAILWAYS

Summary of Revenue and Expenses, Nine Months Ended December 31, 1920

	Revenue	Expenses	Deficit
	$ cts.	$ cts.	$ cts.
Intercolonial Railway	23,656,630 73	26,708,187 87	3,051,557 14
Prince Edward Island Railway	750,973 63	1,329,349 19	578,375 56
Transcontinental Railway—Eastern Lines	6,056,222 27	8,250,576 69	2,194,354 42
Transcontinental Railway—Western Lines	5,796,906 43	6,328,579 07	531,672 64
Moncton and Buctouche Railway	47,251 95	76,312 92	29,060 97
Elgin and Havelock Railway	14,776 51	53,992 81	39,216 30
St. Martins Railway	22,070 77	62,714 39	40,643 62
York and Carleton Railway	5,687 38	22,646 06	16,958 68
Salisbury and Albert Railway	59,187 46	126,934 16	67,746 70
Lotbiniere and Megantic Railway	22,001 27	43,171 86	21,170 59
Caraquet and Gulf Shore Railway	72,725 29	106,121 41	33,396 12
Cape Breton Railway	9,655 66	24,432 31	14,776 65
Quebec and Saguenay Railway	30,890 99	44,598 93	13,707 94
Hudson Bay Railway	97,652 15	149,237 32	51,585 17
	36,642,632 49	43,326,854 99	6,684,222 50

CANADIAN GOVERNMENT RAILWAYS

CAPITAL ACCOUNT NINE MONTHS ENDING DECEMBER 31, 1920.

1920	Dr.		$ cts.	$ cts.			$ cts.
	Intercolonial Railway.						
Mar. 31	To Cost of Intercolonial Railway to March 31, 1920			140,991,709 07		By Dominion of Canada	363,274,505 29
	Construction and betterments		2,515,706 50				
	Halifax ocean terminals		181,436 34				
	Exchequer Court awards		69,059 87				
			2,766,202 71				
	Cr.						
	Double track, Moncton St. John	$ 3,854 56					
	Dams constructed Riv. du Loup	3,000 00					
	Dartmouth to Deams	45 00					
	Sidings Willow Park	1,964 75					
	Land near Birch Cove	100 00					
	Crossing bell at Belmont	954 00					
	Scrap value nine oil tanks	300 00					
	Canadian Northern generator	3,000 00					
			13,218 31				
				2,752,984 40			
				143,744,693 47			
	Prince Edward Island Railway.						
	To Cost to March 31, 1920		12,749,112 00				
	Construction and betterments		56,924 27				
				12,806,036 27			
	New Brunswick and Prince Edward Island Railway.						
	To Cost to March 31, 1920		529,381 32				
	Construction and betterments		88,933 54				
				618,314 86			
	International Railway.						
	To Cost March 31, 1920		2,858,394 69				
	Construction and betterments		37,959 74				
				2,896,354 43			
	National Transcontinental Railway.						
	To Cost to March 31, 1920		166,698,645 64				
	Construction and betterments		1,101,129 05				
	Pay claims for right of way		20,824 79				
				167,820,599 48			

CANADIAN GOVERNMENT RAILWAYS

CAPITAL ACCOUNT, NINE MONTHS ENDING DECEMBER 31, 1920—*Concluded*

1920	Cr.		$ cts.	$ cts.				$ cts.
	Turtle bridge	6,947 93						
	Land for ballast pit	1,011 00						
	Section houses, St. Maurice	73 00						
			8,031 93					
				167,812,567 55				
	Moncton and Buctouche Railway.							
	To Cost to March 31, 1920		100,031 53					
	Construction and betterments		49,584 22					
				149,615 75				
	Salisbury and Albert Railway.							
	To Cost to March 31, 1920		127,782 71					
	Construction and betterments		87,606 39					
				215,389 10				
	St. Martins Railway.							
	To Cost to March 31, 1920		124,949 23					
	Construction and betterments		92,364 42					
				217,313 65				
	Elgin and Havelock Railways.							
	To Cost to March 31, 1920		71,440 22					
	Construction and betterments		13,233 93					
				84,674 15				
	York and Carleton Railway.							
	To Cost to March 31, 1920		21,208 94					
	Construction and betterments		838 91					
				22,047 85				
	Quebec and Saguenay Railway.							
	To Cost to March 31, 1920		253,613 00		1920 Dec. 31	By Dominion of Canada		4,440,062 75
	Construction and betterments		333,816 50					
				587,429 50				
	Caraquet and Gulf Shore Railway.							
	To construction and betterments			79,600 00				
	Lotbiniere and Megantic Railway.							
	To construction and betterments			9,840 00				

Canadian Government Railways.						
To rolling stock to March 31, 1920		38,748,236 94				
Expenditure	797,530 19					
Cr.						
Overcharge on draft arms	3,222 61					
		794,307 58				
			39,542,544 52			
			368,786,521 10			
Less previous year's expenditure:—						
S.S. *Drummond*		550,339 13				
S.S. *McKee*		521,514 11				
			1,071,853 24			
			367,714,567 86			367,714,567 86

CANADIAN GOVERNMENT RAILWAYS

Revenue Account, Nine Months Ended December 31, 1920

Working Expenses			*Earnings*	
Maintenance of way and structure		$10,973,212 88	Freight traffic	$25,492,081 75
Maintenance of equipment		8,498,488 10	Passenger traffic	8,257,054 85
Total		$19,471,700 98	Ocean traffic	23,129 99
Traffic expenses		528,271 93	Mail, express, etc.	1,497,329 47
Transportation rail line		21,325,765 74		$35,269,596 06
Transportation water line		52,889 78	Add:	
Miscellaneous operations		622,923 61	Hire of equipment	1,373,036 43
General expenses		871,762 95		$36,642,632 49
Rental leased roads—				
Transcontinental Railway	$450,000 00			
N. B. & P. E. I. Railway	3,540 00			
		453,540 00		
		$43,326,854 99	Balance	6,684,222 50
				$43,326,854 99

CANADIAN GOVERNMENT RAILWAYS

General Balance, Nine Months Ended December 31, 1920

Dr.		Cr.	
To general stores	$ 9,757,420 40	By Dominion of Canada	$28,987,426 27
Auditors' suspense	408,320 78	Freight in transit	87,583 80
Cash	0 02	Equipment renewals	1,052,421 29
Cash in transit	396,493 52	Canadian Government Railways Provident Fund	539,504 45
Loss and damage freight suspense	55,359 71	Fire renewal account	86,700 71
Rail loan account	153,442 08	Rail renewal account	52,411 38
Station agents	1,058,286 70	Dining and sleeping cars west	67,353 60
War saving and thrift stamps	11,229 12	Government sales tax	9,819 73
Capital suspense—International Railway	2,666 67	Bank of Montreal special account	1,493,716 92
Capital suspense—Vale Railway	49,234 31	Capital suspense—Overseas rails	726,492 03
Branch line aid suspense	138,510 93	Capital suspense—Elgin and Havelock	792 46
Receiver General—Provident fund	3,346,781 07	Capital suspense—York and Carleton	165 18
Restaurant suspense	564 33	Capital suspense—St. Martins	1,736 96
Equipment pool account	386,585 15	Capital suspense—Moncton and Buctouche	5,713 40
Victory Loan suspense	30,994 30	Capital suspense—Salisbury and Albert	2,609 90
Dining and sleeping cars east	9,808 14	Capital suspense—Land at Pictou	1,970 18
Individuals and companies, suspense ledger	65,141 37	Capital suspense—Cape Breton Railway	1,443 89
Individuals and companies ledger	11,382,577 68	Capital suspense—Lotbinière and Megantic	3,972 00
Traffic ledger	4,597,460 82	Capital suspense—Caraquet and Gulf Shore	3,929 93
Car service ledger	720,421 17		
Rents ledger	13,873 72		
Advances	82,394 48		
	$33,125,764 08		$33,125,764 08

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CANADIAN GOVERNMENT RAILWAYS

General Stores Account, Nine Months Ended December 31, 1920

Debit			Credit		
To balance March 31, 1920..		$ 8,146,993 24	By issues during 9 months ended December 31, 1920..		$19,981,189 09
Purchases during nine months ended December 31, 1920..	$20,582,362 91		Sales of material fuel, etc	2,645,265 43	
Charges from other departments	4,011,985 97		Sales old material	802,507 50	
Labour	264,639 20				$23,428,962 02
Staff pay-rolls ..	180,401 10		Balance—		
			Ordinary stores, including fuel.	6,835,351 46	
			Roadway and bridge material	2,922,068 94	
		25,039,389 28			$ 9,757,420 40
		$33,186,382 42			$33,186,382 42

CANADIAN GOVERNMENT RAILWAYS

Statement of Cash Received, Nine Months Ended December 31, 1920

Dr.		Cr.	
To Balance on hand, April 1, 1920	$ 0 02	By Amounts deposited to the credit of the Honourable Receiver-General of Canada during nine months ended December 31, 1920..	$39,271,657 04
Amounts deposited during year and credited as follows—		Leaving a balance on hand..	0 02
Station agents..	26,997,116 37		
Traffic ledger	6,333,200 69		
Car service ledger.. ..	814,072 74		
Individual and companies—			
Ledger..	4,164,722 74		
Rents' ledger..	58,127 49		
General ledger..	904,417 01		
	$39,271,657 06		$39,271,657 06

CANADIAN GOVERNMENT RAILWAYS

Rail Renewal Account—Nine Months ended December 31, 1920

On April 1, 1920, there was a balance to the credit of the rail renewal account of.. .. ..

CANADIAN GOVERNMENT RAILWAYS

Equipment Renewal Account—Nine Months Ended Decemrer 31, 1920

	Dr.	Cr.
There was a credit balance at April 1, 1920, to the credit of equipment renewal account of..	.....	$1,055,972 34
Cash received from sale of old rolling stock..	.....	83,615 12
		$1,139,587 46
There has been charged during the year against the above account for rolling stock repaired and changed—		
Changing twenty hospital cars to baggage and smoking cars..	$ 87,166 17	$ 87,166 17
Leaving a credit balance to the credit of equipment renewal account on December 31, 1920, of..		$1,052,421 29

NEW BRUNSWICK AND PRINCE EDWARD ISLAND RAILWAY

Rental Account— Nine Months Ended December 31, 1920

1920			1920.		
Dec. 31.	To interest from December 1, 1919, to December 1, 1920..	$3,540 00	Dec. 31.	By Dominion of Canada..	$3,540 00

NATIONAL TRANSCONTINENTAL RAILWAY

Rental Account—Nine Months Ended December 31, 1921

	Dr.		Cr.	
1920			1920	
Dec. 31.	To amount paid Grand Trunk Pacific Railway for rental of Lake Superior Branch, from April 1, 1920, to December 31, at $50,000 per month. ..	$450,000 00	Dec. 31. By Dominion of Canada..	$450,000 00
		$450,000 00		$450,000 00

SAINT JOHN AND QUEBEC RAILWAY

Revenue Account—Nine Months Ended December 31, 1920

Expenditure		*Earnings*	
Maintenance of way and structures..	$220,799 08	Freight..	$128,269 21
Maintenance of equipment. ..	17,091 95	Passenger..	75,160 74
Traffic..	2,611 07	Mails, Express, etc..	6,837 52
Transportation rail line.	116,314 97		$210,267 47
General..	3,192 06	Less:	
	$360,009 13	Hire of equipment..	38,550 26
Rental..	84,106 98		$171,717 21
	$444,116 11	Balance..	$272,398 90
			$444,116 11

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SAINT JOHN AND QUEBEC RAILWAY

General Balance—Nine Months Ended December 31, 1920

Dr.		Cr.	
To Stores Department..	$ 2,590 94	By Government Sales Tax. ..	$ 1 12
Individuals and companies' ledger	15,105 17	St. John and Quebec Ry. Co. suspense rental	33,317 14
Traffic ledger..	17,156 24	Bank of Montreal special account..	60,566 63
Rents ledger..	70 00		
Auditor's suspense..	2,978 37		
Cash in transit..	1,464 34		
Station agents...	3,088 51		
Dominion of Canada.	51,431 32		
	$93,884 89		$93,884 89

SAINT JOHN AND QUEBEC RAILWAY

Statement of Cash Recceived—Nine Months Ended Decemrr 31, 1920

Dr.		Cr.	
To Balance on hand, April 1, 1920..	Nil	By Amounts deposited to credit of the Honourable Receiver-General during nine months ending December 31, 1920..	$206,987 01
Station agents..	$185,910 46		
Rents ledger..	225 40		
Traffic ledger..	13,779 42		
I. & C. ledger..	7,071 73		
	$206,987 01		$206,987 01

SAINT JOHN AND QUEBEC RAILWAY

General Stores Account—Period Ending Decemrer 31, 1920

Debit		Credit	
Purchase during period ended December 31, 1920..	$76,476 84	By Balance, March 31, 1920...	$ 50 89
Charges from other departments..	2,380 02	By issue during period ended December 31, 1920..	76,215 03
		Balance, December 31, 1920 ..	2,590 94
	$78,856 86		$78,856 86

S. L. SHANNON,
Comptroller and Treasurer.

G. N. PALMER,
Auditor of Disbursements.

REPORT OF THE AUDITOR OF STORES AND MECHANICAL ACCOUNTS

General Statement of the Work done in the Canadian Government Railway Shops for the Nine Months Period, March 31 to December 31, 1920

Locomotive department—	
Locomotives rebuilt	Nil
" repaired	510
" converted to superheater	13
" equipped with latest type electric headlight	38
" equipped with 8½" Cross Compound Pumps	19
" equipped with power reverse gear	2
" equipped with brick arch tubes	55
" equipped with coal pushers	3
" equipped with coal boxes	11
Tender tanks rebuilt	8
Tender frames rebuilt	7
Repairs to work equipment—	
Ditchers and steam shovels	16
Ballast spreader and Lidgerwood	21
Cranes	13
Rotary ploughs	1
Pile drivers	11
Rail loaders	3
Cars remodelled—	
Tourist to baggage	3
Tourist to baggage and smoker	9
Tourist to excursion	10
Tourist to store supply car	2
Dinning to parlor	6
Hospital to express and smoker	18
Postal to second-class and baggage	1
Second-class to auxiliary	1
Flat to fire fighting	1
Flat to auxiliary	1
Flat to gas transport	2
Box to pulp	197
Box to tool car	1
Box to boarding car	19
Cars repaired—	
Passenger cars—Heavy	552
Passenger cars—Light	485
Freight and work cars	14,488
Cars equipped with safety appliances	45
Cars equipped with steel draft arms	903

Cars of all descriptions were kept in proper condition for traffic and were painted and repaired when necessary.

Shop machinery and tools of all points were repaired and kept in good working condition

Safety appliances were kept in good repair and new ones installed where necessary.

Reclamation plant was put in operation at Moncton in July, 1920, and large quantities of material reclaimed and made serviceable.

CANADIAN GOVERNMENT RAILWAY—EASTERN AND WESTERN LINES

STATEMENT Showing the Number of Locomotives and the Various Classes of Other Rolling Stock on the Lines, March 31 1920, and December 31, 1920.

	Passenger Cars															Freight Cars															
	Locomotives	Sleeping	Parlor	Dining	Colonist	1st Class	2nd Class	Postal	Baggage	Hospital	Vision Test	Box Baggage	Air Brake Inspection	Steam Motor	Total Passenger Cars	Box	Refrigerator	Platform	Oil Tank	Pitch Tank	Hopper	Gondola	20-ton Coal	Hart-Otis	Stock	Hart Convertible	Pulpwood	Pit Cars	Eastman Heaters	Caboose	Total Freight Cars
On hand serviceable and repairing, March 31, 1920	767	77	24	27	77	176	109	45	90	20	1	25	1	1	673	16,582	390	2,375	62	20	211	471	6	923	1,245	1,121	851	4	200	391	24,852
To be replaced March 31, 1920	...	2			..	2	5	2	5	..	.	1	...	..	17	150	15	1,414	.	...	542	166	368	1	16	6	14	...	...	23	2,715
Total Equipment, March 31, 1920	767	79	24	27	77	178	114	47	95	20	1	26	1	1	690	16,73	2 40	5 3,78	9 6	2 2	0 75	3 63	7 37	4 92	4 1,26	1 1,12	7865	4	200	414	27,567
Converted on Capital; Tourist to baggage, 3; to baggage and smoker, 9; dining to parlor, 6; hospital to express and smoker, 18; tourist to excursion, 10; flat to fire fighting, 1		..	6		10				31	.				.	47	.	.	.				.					197	.		.	197
Converted on Maintenance: Box to pulp, 197; to tool car, 1; to boarding, 19; postal to 2nd class and baggage, 1; 2nd class to auxiliary coach, 1; tourist to store supply, 2; flat to auxiliary, 1; to gas transport, 2				*6*	*24*		*1*	*1*		*18*					*50*	*217*		*4*													*331*
Total equipment to December 31, 1920	767	79	30	21	63	178	113	46	126	2	1	26	1	1	687	6,515	405	3,785	62	20	753	637	374	924	1,261	1,12	1062	4	200	414	27,543
To be replaced March 31, 1920 as above		2			..	2	5	2	5	.		1			17	150	15	1,414	..		542	166	368	1	16	6	14	....	...	23	2,715
Condemned (year) period, March 31, 1920, to December 31, 1920	11	.			..	.	.	.	.					1	1	57	9	59	2		109	90	..	. .	7	3	13		1	3	353
Total condemned and destroyed to December 31, 1920	11	2			..	2	5	2	5	.		1		1	18	207	24	1,473	2		651	256	368	1	23	9	27		1	26	3,068
To be replaced December 31, 1920	11	2			..	2	5	2	5	.		1		1	18	207	24	1,473	2		651	256	368	1	23	9	27		1	26	3,068
Add serviceable and repairing	756	77	30	21	63	176	108	44	121	2	1	25	1	1	650	16,308	381	2,312	60	20	102	381	6	923	1,238	1.118	1035	4	199	388	24·475
Total equipment December 31, 1920	767	79	30	21	63	178	113	46	126	2	1	26	1	1	687	16,515	405	3,785	62	20	753	637	374	924	1,261	1,127	1062	4	200	414	27,543

NOTE.—Figures in italics are deductions.

CANADIAN GOVERNMENT RAILWAYS—EASTERN AND WESTERN LINES—*Concluded*

STATEMENT Showing the Number of Locomotives and the Various Classes of Other Rolling Stock on the Line, March 31, 1920, and December 31, 1920—*Concluded.*

| | Work Cars | | |

PRINCE EDWARD ISLAND RAILWAY

STATEMENT Showing the Number of Locomotives and the Various Classes of Other Rolling Stock on the Line on March 31, 1920, and December 31, 1920

	Locomotives	Passenger Cars							Freight Cars									Work Cars					
		First-class Passenger Cars	Second-class Passenger Cars	Combination Second-class and Baggage Cars	Postal and Smoking Cars	Combination Postal and Baggage Cars	Baggage Cars	Total Passenger Cars	Box Cars	Refrigerator Cars	Stock Cars	Oil Tank Cars	Hart Convertible Cars	Coal Cars	Platform Cars	Cabooses	Total Freight Cars	Dump Cars	Snow Plows	Flangers	Steam Shovel	Total Work Cars
On hand, serviceable and repairing, March 31, 1920	22	19	10	5	3	3	6	46	338	2	28	1	15	10	202	3	599	15	11	0	0	26
To be replaced, March 31, 1920	13	5	4	2	1	1	2	15	5	1	..	..	..	2	5	1	14	..	2	8	1	11
Total equipment, March 31, 1920	35	24	14	7	4	4	8	61	343	3	28	1	15	12	207	4	613	15	13	8	1	37
Total equipment, March 31, 1920	35	24	14	7	4	4	8	61	343	3	28	1	15	12	207	4	613	15	13	8	1	37
Condemned and destroyed, March 31, 1920, to December 31, 1920	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
To be replaced March 31, 1920, as above	13	5	4	2	1	1	2	15	5	1	..	..	..	2	5	1	14	..	2	8	1	11
Add serviceable and repairing	21	19	10	5	2	3	6	45	338	2	28	1	15	10	202	3	599	15	11	0	0	26
Total to be replaced	14	5	4	2	2	1	2	15	5	1	..	..	..	2	5	1	14	..	2	8	1	11
Total equipment, December 31, 1920	35	24	14	7	4	4	8	61	343	3	28	1	15	12	207	4	613	15	13	8	1	37

REPORT OF A. F. STEWART, CHIEF ENGINEER

MAIN LINE CHANGES AND NEW LINES PUT INTO OPERATION

Intercolonial Railway.—At Halifax on the Deepwater Terminals Branch a revision was made to the main line, giving a continuous double track with easier grades and alignment through to the Deepwater Terminals.

At Dartmouth, revisions were made to the main line, improving the grades and reducing curvature.

Between Truro and Belmont, the double tracking which was started during 1919 was completed and put into operation on November 18, 1920. The completion of this work added 7·65 miles to the second main line operated mileage.

Between Springhill and Maccan, double tracking started during the year 1919, was completed and put into operation on October 17, 1920. The increase to second main line mileage due to this double tracking was 9·70.

At the west end of Moncton yard a connection between the St. John Subdivision and the Newcastle Subdivision, work on which was commenced during 1919, was put into operation on November 17, 1920. This connection is graded for double track, but at present only single track is laid. With the existing track on the Newcastle Subdivision, and this new connection, double track into Moncton is formed, increasing the second main line mileage by 3·30 miles.

On the Fredericton Subdivision grade and alignment revisions have been undertaken during the past year and at the end of the year traffic had been diverted to the new track on 0·7 miles of line at Taymouth and 0·3 miles at Durham. These diversions involved no change in the length of main line.

Between Bagot and St. Rosalie, double tracking and grade reduction commenced during 1919, which involved a diversion 4·7 miles in length, was completed and put into operation. This diversion and double tracking increased the main line mileage by 0·19 miles and added 10·64 miles to the second main line mileage.

Lotbiniere and Megantic Railway.—This railway, 2,959 miles in length, was purchased by the Dominion Government and taken over for operation on April 1, 1920. The line extends from Lyster to Deschaillons, crossing the Intercolonial Railway at Villeroy, and has been named the Deschaillons Subdivision.

Caraquet and Gulf Shore Railway.—This railway, having a main line mileage of 80·01 miles, was purchased by the Dominion Government and taken over for operation on June 1, 1920. This line leaves the main line of the Intercolonial Railway at Gloucester Junction and terminates at Tracadie. There is also a branch from Pokemouche Junction to Shippegan. From Gloucester Junction to Tracadie has been named the Caraquet Subdivision and from Pokemouche Junction to Shippegan, the Shippegan Subdivision.

Cape Breton Railway.—This railway, extending from Point Tupper to St. Peters, 30·64 miles in length, was purchased by the Dominion Goernment and taken over for operation on July 1, 1920, being named the St. Peters Subdivision.

Quebec and Saguenay Railway.—The completion of construction work on this railway, which has been carried out since its purchase by the Dominion Government, was sufficiently advanced to permit of the railway being put into operation on October 1, 1920. The main line mileage from Quebec to Nairn's Falls, is 92·71 miles, which includes 25·1 miles running rights over the Quebec Railway, Light, Heat and Power Company's track from Quebec to St. Joachim and 5·3 miles from St. Joachim to Cap Tourmente leased from the Quebec Railway, Light, Heat and Power Company.

ROADBED AND TRACK

The operated mileage of Canadian Government Railways on December 31, 1920, was as follows:—

	Main Line	Second Main Line	Passing Sidings	Other Sidings and Spurs	Total
Eastern lines	3,816·75	73·82	318·92	678·35	4,887·84
Western lines	390·54	4·80	35·46	84·04	514·84
Leased lines	203·18	. . . . .	21·77	48·22	273·17
Joint sections and running rights	82·65	37·62	. . . . .	. . . .	120·27
Totals	4,493·12	116·24	376·15	810·61	5,796·12

ROADBED AND TRACK MILEAGE—*Concluded*

		Inter-colonial Railway	Prince Edward Island Island	New Brunswick and Prince Edward Railway Railway	International Railway	Moncton and Buctouche Railway	Elgin and Havelock Railway	Hampton and St. Martins Railway	York and Carleton Railway	Salisbury and Albert Railway
Main Line	Miles	1,482·78	275·99	36·05	105·12	29·93	26·11	28·73	5·46	44·77
2nd Main Line	"	73·31	.....	.....	.....	.....	.....	.....	.....	.....
Passing Sidings	"	159·41	7·80	1·72	2·89	0·67	0·48	0·49	.....	1·12
Other Sidings and Spurs	"	446·97	32·85	5·05	4·01	1·24	0·71	0·77	1·35	3·03
Totals		2,162·47	316,64	42·82	112·02	31·84	27·30	29·99	6·81	48·92

		National Transcon inental Railway	St. John and Quebec Railway	Caraquet and Gulf Shore Railway	Lotbiniere and Megantic Railway	Cape Breton Railway	Quebec and Saguenay Railway	Leased Lines	Joint Sections and Running rights	Total
Main Line	Miles	1,811·69	158·11	80·01	29·59	30·64	62·31	203·18	82·65	4,493·12
2nd Main Line	"	5·31	.....	.....	.....	.....	.....	.....	37·62	116·24
Passing Sidings	"	107,67	5·19	1·52	.....	0·49	1·93	21·77	.....	376·15
Other Sidings and Spurs	"	284·53	8·07	4·27	3·37	1·55	0·62	48·22	.....	810·61
Totals		2,236 20	171·37	85·80	32·96	32·68	64·86	273·17	120·27	5,796·12

WEIGHT OF RAIL IN MAIN TRACK

	Inter-colonial Railway	Prince Edward Island Railway	New Brunswick and Prince Edward Island Railway	Inter-national Railway	Moncton and Buctouche Railway	Elgin and Havelock Railway	Hampton and St. Martins Railway	York and Carleton Railway	Salisbury and Albert Railway
50-lb.	.....	108·06	.....	.....	.....	20·41	.....	.....	.....
56-lb.	16·93	156·16	.....	.....	22·68	1·00	28·43	5·46	32·47
60-lb.	.....	.....	.....	51·30	.....	.....	.....	.....	.....
67-lb.	188·76	0 80	.....	40·86	1·25	4·70	0·30	.....	3·40
67½-lb.	.....	67·30	.....	.....	.....	.....	.....	.....	.....
70-lb.	16·21	.....	.....	.....	.....	.....	.....	.....	.....
72-lb.	.....	.....	.....	.....	.....	.....	.....	.....	2·00
80-lb.	543·92	4·65	36·05	12·27	6·00	.....	.....	.....	6·90
85-lb.	790·27	.....	.....	0·69	.....	.....	.....	.....	.....
Totals	1,556·09*	336·97	36·05	105·12	29·93	26·11	28·73	5·46	44·77

NOTE—*Mileage of rail on Prince Edward Island Railway includes 60·98 miles of track in which there is a third rail for standard gauge trains.

WEIGHT OF RAIL IN MAIN TRACK—*Continued.*

Weight	National Trans-continental Railway	St. John and Quebec Railway	Caraquet and Gulf Shore Railway	Lotbiniere and Megantic Railway	Cape Breton Railway	Quebec and Saguenay Railway	Leased Lines	Joint Sections and Running Rights	Totals
50-lb.	.....	.....	63·62	.....	.....	.....	.....	.....	192·09
56-lb.	.....	.....	16·39	29·59	.....	.....	5·30	.....	314·41
60-lb.	.....	.....	.....	.....	25·03	15·59	.....	.....	91·92
67-lb.	.....	0·19	.....	.....	.....	9·41	1·84	.....	251·51
67½-lb.	.....	.....	.....	.....	.....	33·89	.....	.....	101·19
70-lb.	.....	.....	.....	.....	.....	.....	.....	.....	16·21
72-lb.	.....	.....	.....	.....	5·61	.....	4·34	.....	11·95
80-lb.	1,758 42	140·42	.....	.....	.....	3·42	178·80	.....	2,690·85
85-lb.	58·58	17·50	.....	.....	.....	.....	12·90	.....	879·94
Totals	1,817 00	158·11	80·01	29·59	30·64	62·31	203·18		4,550·07

RAIL AND TIE RENEWALS, BALLASTING, DITCHING, NEW SIDINGS, ETC.

		Inter-colonial Railway	Prince Edward Island Railway	New Brunswick and Prince Edward Island Railway	Inter-national Railway	Moncton and Buctouche Railway	Elgin and Havelock Railway	Hampton and St. Martins Railway	York and Carleton Railway	Salisbury and Albert Railway
New 85-lb. rails laid	miles	141·22								
" 67½-lb. rails laid	"		1·10							
Relay 80-lb. rails laid	"	9·37			2·80	3·00				2·40
" 70-lb. "	"	0·21								
" 67-lb. "	"				0·61		1·55	0·30		0·50
" 60-lb. "	"				0·36					
" 56-lb. "	"									
Tie renewals—Main Line	number	668,456	61,964	10,740	22,080	6,306	6,538	3,821	1,820	14,055
" Sidings	"	88,976	2,743	433	300	331	340	202		725
" Switch ties	sets	427	47		2	3	4		4	7
Tie plates placed	number	274,967								
Rail anchors	"	1,200								
Ballasting	miles	151·73	9·10	0·50	12·60	6·30		2·00		6·50
Ditching	"	110·01			12·40	4·00		4·50		3·00
Bank widening and trimming	"	38·80			0·75			1·00		0·50
Tile underdraining	"	0·10								
Riprap protection	lin. ft.	3,500			200					
Cribwork	"		500		1,350			145		
Retaining walls	"									
Dangerous rocks removed	cu. yds	10,500								
Wire fencing erected	miles	109·41	7·50				0·25			
Snow "	"	2·20	1·40			0·40	0·40	0·40		0·60
Board "	"	0·36								
Clearing right-of-way	acres					60·0	10·0	45·0		50·0
Highway crossings built	number									
Farm crossings built	"									
Roadways constructed	"									
Sidings, additional—passing	lin. ft.	5,524						425		961
" " business	"	65,053	775			1,003	845	370		2,421
" " private	"	28,302	2,061		480			240		
Sidings taken up—passing	"	14,520								
" " business	"	17,004				210	210			
" " private	"	9,857								
Re-laying sidings previously removed for overseas rail										

RAIL AND TIE RENEWALS, BALLASTING, DITCHING, NEW SIDINGS, ETC.—*Continued.*

	National Trans-continental Railway	St. John and Quebec Railway	Caraquet and Gulf Shore Railway	Lotbiniere and Megantic Railway	Cape Breton Railway	Quebec and Saguenay Railway	Leased Lines	Totals
New 85-lb. rails laid ..... miles	29·59	.....	.....	.....	.....	.....	.....	170·81
" 67½-lb. " ..... "	.....	.....	.....	.....	.....	4·17	.....	5·27
Relay 80-lb. " ..... "	130·00	0·54	.....	.....	.....	.....	2·10	21·51
" 70-lb. " ..... "	.....	.....	.....	.....	.....	.....	.....	0·21
" 67-lb. " ..... "	.....	.....	.....	.....	.....	.....	.....	2·96
" 60-lb. " ..... "	.....	.....	.....	.....	.....	.....	.....	0·36
" 56-lb. " ..... "	.....	.....	3·00	.....	.....	.....	.....	3·00
Tie renewals—Main Line ..... number	560,027	80,371	24,090	5,717	1,875	7,164	69,063	1,544,087
" Sidings ..... "	71,740	2,220	910	377	.....	.....	18,768	188,065
" Swith ties ..... sets	109	10	.....	.....	.....	.....	4	617
Tie plates placed ..... number	133,550	3,059	.....	.....	.....	38,000	.....	449,576
Rail anchors placed ..... "	8,000	.....	.....	.....	.....	.....	20,200	29,400
Ballasting ..... miles	68·16	.....	.....	.....	.....	10·94	5·00	272·83
Ditching ..... "	52·55	15·00	1·00	.....	.....	2·67	1·70	206·83
Bank widening and trimming ..... "	6·50	.....	1·00	.....	.....	.....	.....	48·55
Tile underdraining ..... "	1·86	.....	.....	.....	.....	.....	.....	1·96
Riprap protection ..... lin. ft.	.....	2,000	.....	.....	.....	600	.....	6,300
Cribwork protection ..... "	.....	.....	.....	.....	.....	.....	.....	1,995
Retaining walls ..... "	40	.....	.....	.....	.....	.....	.....	40
Dangerous rocks removed ..... cu. yd.	3,076	1,155	.....	.....	.....	.....	.....	14,731
Wire fencing erected ..... miles	71·00	.....	.....	.....	.....	8·10	2·07	198·33
Snow " " ..... "	1·00	0·20	.....	.....	.....	1·39	.....	7·99
Board " " ..... "	0·31	.....	.....	.....	.....	.....	.....	0·67
Clearing right-of-way ..... acres	.....	.....	85·0	.....	.....	.....	.....	250·00
High way crossings built ..... number	6	.....	.....	.....	.....	.....	.....	6
Farm crossings built ..... "	13	.....	.....	.....	.....	.....	.....	13
Roadways constructed ..... "	2	.....	.....	.....	.....	.....	.....	2
Sidings, additional passing ..... lin. ft.	18,301	.....	1,800	.....	.....	.....	1,794	28,805
" " business ..... "	18,561	725	.....	.....	.....	1,550	4,410	91,713
" " private ..... "	36,352	3,102	750	377	.....	.....	6,090	77,754
Sidings taken up passing ..... "	.....	.....	.....	.....	.....	.....	.....	14,520
" " business ..... "	.....	.....	.....	.....	.....	1,975	.....	19,399
" " private ..... "	5,206	.....	.....	.....	.....	.....	.....	15,063
Relaying sidings previously removed for overseas rail	33,147	.....	.....	.....	.....	.....	.....	33,147

MAIN LINES UNDER CONSTRUCTION

Intercolonial Railway.—On the Fredericton Subdivision, grade and alignment revisions to reduce the excessive curvature and short steep grades, from mile 89·94 to 92·30 and from mile 95·32 to 96·51 were undertaken and, at the end of the year 55 per cent completed. This work is part of a proposed improvement of the line from McGivney Junction to Fredericton for through traffic between the West and the winter port of St. John.

Between Charny and Quebec bridge, a direct connection to facilitate the operation of the railway is under construction. This connection will reduce the distance between the above points by 1·25 miles and eliminate the grade crossing on the bridge subdivision with the Chaudière Valley Railway. The work at the end of the year was 25 per cent completed.

TERMINAL IMPROVEMENTS

Intercolonial Railway—Halifax.—At the Ocean Terminals construction of permanent train shed was completed. Sign and number boards were placed at the ends of the various tracks for information of travellers. Additional platforms and roadways were built and additional drainage, water and steam pipes installed. Roadways to the team tracks were surfaced with gravel and a new roadway constructed to serve shed No. 23, doing away with the necessity of teaming through shed No. 24. A ramped roadway was constructed to shed No. 28. In shed No. 24 a fire pump with salt water connection was installed giving increased fire protection. Additional gas tanks were provided at the car shop.

At the Deepwater Terminals, additional filling with waste rock was made for extension of team tracks. The first floor of shed on pier No. 2 was remodelled to conform with the requirements of the Immigration Department.

At Fairview, grading of site for new engine terminal, car repair shop and yard was undertaken and at the end of year was 80 per cent completed.

Dartmouth.—The rearrangement and extension of yard, giving a capacity of 220 cars, which was started during year 1918, was completed. The grade of Lyle street was lowered on account of grade revision at this point. Roadway to the freight-shed was widened and graded.

Truro.—An electrically-driven 250-ton coaling plant was erected and put in operation greatly facilitating the coaling of engines.

Sydney.—An Ord ash pit was constructed and new air line installed to sand-house.

Point Tupper.—Construction of a 100-ton mechanical coaling plant at this terminal was 90 per cent completed.

Pirate Harbour.—A 100-ton coaling plant is being constructed and at the end of the year was 70 per cent completed.

Moncton.—Grading in connection with proposed new terminal facilities has been started. New terminal facilities and increased accommodation at this point are necessary on account of the existing facilities being out of date for present types of locomotives, inefficient and inadequate and the proposed new facilities at the west end of the existing yard will, with the new connection between the St. John and Newcastle Subdivisions, which has been put into operation, greatly facilitate the handling of trains and engines and make a large reduction in the cost of conducting traffic.

At Moncton shops, additional shop area is being provided by roofing the space between the boiler and erecting shops. A 25-foot ash pit was constructed at the erecting shop and a 35-foot repair pit in the freight car repair shop. The roof of the erecting shop was insulated to prevent condensation of moisture during the winter months.

St. John.—Rearrangement and extension of Island yard, increasing the capacity of yard by 500 cars for the handling of export traffic, was carried out. This extension involved the diversion of March creek and the construction of a new double track pile bridge. Nine new tracks were completed and put into operation, the whole scheme being 65 per cent completed at the end of the year. A 100-ton mechanical coaling plant was removed from the N.T.R. yard at Moncton and erected at St. John, facilitating the coaling of engines and reducing the cost of handling which was previously done by a system of coal pockets and crane. The old train shed at Union depot was removed and replaced with umbrella roofs between tracks. At Water street, three additional tracks were laid to accommodate increased business at this point. In the grain elevator a dust collector system is being installed. A spur line to the St. John Shipbuilding and Dry Dock Company's plant at East St. John was completed and put into operation.

Newcastle.—A hundred-ton mechanical coaling plant was constructed and tracks rearranged to serve the plant.

Chaudière Junction.—Engine facilities at this terminal, which were inadequate and inefficient are being extended by construction of thirteen additional stalls and the enlargement of four existing stalls. A new machine shop is being erected and concrete ash pits constructed. The increased terminal facilities at this point will, when completed, permit of the abandonment of the G.T.R. engine facilities at Point Lévis and the N.T.R. engine facilities at bridge, the business of the three terminals being handled at Chaudière Junction.

New Brunswick and Prince Edward Island Railway.—At Cape Tormentine it was found necessary to dredge the entrance channel and turning basin to provide greater depth of water, there being danger of the ferry steamer *Prince Edward Island* touching bottom during low tides and gales. This work was 30 per cent completed. Spring bumper equipment was installed at the ferry landing.

Prince Edward Island Railway.—At Charlottetown, about 2,000 feet of narrow gauge track was converted to multiple track to accommodate standard guage equipment and at Royalty Junction 2,200 feet of narrow gauge track was converted to multiple track.

National Transcontinental Railway.—At Monk, alterations were made to the mechanical coaling plant, and a special loading device provided to eliminate constant trouble from flooding of pit.

St. Malo.—Additional equipment, tools and machinery were installed and additional tracks provided. A new building was erected for housing acetylene generator and sheds constructed, with shelving and racks, for castings and bar iron. At the power-house an elevator was installed for removing ashes from basement. In the locomotive erecting shop a 20-ton electric travelling crane was installed. A Fire Department was organized and 1,000-gallon fire-pump and equipment for firemen provided.

Cochrane.—An oil storage system was installed in store house and oil and waste reclaiming machine provided.

Sioux Lookout.—Alterations were made to the coaling chute to facilitate coaling of engines. A septic tank and affluent bed for disposal of the sewerage from station, round house and bunk house is being constructed.

Grand Trunk Pacific Branch.—Raith was re-established as a terminal point on September 1, 1920, the engine shed and bunk rooms being overhauled.

Quebec and Saguenay Railway.—At La Malbaie, a one-stall additional engine-house was erected and sidings constructed for storage of passenger coaches and snow plows. Steam pipe connection was made from engine house to coach storage siding for the heating of cars. A half ton coal hoist was provided for coaling engines.

WATER SERVICE AND DRAINAGE

Intercolonial Railway.—Three new pumps and two hydraulic rams were installed, one 40,000-gallon tank erected, two reservoirs constructed, six wells sunk, two new stand-pipes installed, twelve domestic water supplies provided at station and section houses, eight new supply lines installed and three other water connections made, seven catch basins constructed, three sewers extended and three new drainage systems installed.

Prince Edward Island Railway.—At Hunter River, a 50,000-gallon capacity storage reservoir was constructed to augment previous supply which failed during dry seasons.

New Brunswick and Prince Edward Island Railway.—At Baie Verte, a new reservoir was constructed, 40,000-gallon tank erected, new pump-house built, and 1,300 foot supply line installed.

International Railway.—A new dam was built at Millersville.

Moncton and Buctouche Railway.—A hydraulic ram was installed and 20,000-gallon tank erected at mile 16·6.

Salisbury and Albert Railway.—At Albert, a gravity water supply and 10,000-gallon tank is under construction, being 80 per cent completed at the end of the year.

St. Martins Railway.—At mile 10·9 a gravity water supply and 5,000-gallon tank, with supply lines, were constructed.

National Transcontinental Railway.—One 50,000-gallon tank was erected, oil vapourizers were provided at sixteen pumping stations, two domestic water supplies were installed and one drainage system constructed.

On all railways, repairs were made where necessary to keep the water service in good working order.

BUILDINGS

Intercolonial Railway.—One new combined station and freight-shed, eight stations and shelters, one freight-shed, one agent's dwelling, three toolhouses, two bunkhouses, two stock pens, one pumphouse, seven miscellaneous buildings and eight platforms were constructed; seven buildings and two platforms were extended; six buildings were moved and relocated; alterations and additions were made to five buildings; steam heating was installed in three buildings.

Prince Edward Island Railway.—One new 350-ton icehouse was constructed; one station moved and relocated; one tool house erected; two platforms constructed and 600 feet of wooden platforms replaced with cinder platform.

International Railway.—One new section dwelling, one temporary station and one coaling platform were erected.

Salisbury and Albert Railway.—One single stall engine shed and one new freight-shed were erected.

York and Carleton Railway.—One cattle chute was provided.

National Transcontinental Railway.—Three new stations and shelters were constructed; thirty-five section-houses built; one coaling plant erected; three new platforms constructed; five miscellaneous buildings erected; eight buildings and twelve platforms extended; five buildings moved and relocated; three wooden platforms replaced with cinder platforms. Steam heating was installed in three buildings.

Grand Trunk Pacific Railway.—One car repair shop and one section-house were erected and one portable station provided.

On all railways the necessary alterations, repairs and painting were made to buildings to keep them in good repair.

DAMAGE BY FLOODS AND HIGH TIDES

High tides, freshets and ice-jams caused considerable damage to roadbed and track on the Bedford, Dartmouth, Sydney, Mulgrave, Albert, St. Martins, Matapedia, Leonard, Fredericton, Centreville, Riviere du Loup, Grand Falls, Champlain Market, Fitzpatrick and Lake Superior Subdivisions. Where the damages occurred, repairs were at once made to put the the roadbed and track in good condition again.

DAMAGD BY FIRE

Intercolonial Railway.—Fire destroyed eight buildings, 1,075 lineal feet of fence, 1,200 track ties, 500 shims and damaged four buildings and one platform.

New Brunswick and Prince Edward Island Railway.—One tool-house was destroyed by fire.

National Transcontinental Railway.—Fire destroyed four buildings, eleven cars, 1,100 track ties, thirty-five telegraph poles, three miles of fencing and damaged two boarding cars and 1,750 lineal feet of track.

Grand Trunk Pacific Branch.—A pile trestle 45 feet in length was destroyed and one building damaged by fire.

BRIDGES AND CULVERTS

The following is a brief summary of the work carried out in connection with bridges and culverts during the period:—

Intercolonial Railway—	
Steel and wooden stringers replaced with concrete slabs	18
Highway overcrossing repaced	1
New bridge seats and ballast walls built on bridges	32
New concrete culverts and pipe culverts constructed	9
Culverts replaced with concrete and pipe culverts	163
Concrete and pipe culverts extended	3
Culverts renewed	17
Culverts filled in	2
Bridges repaired and strengthened	92
Sidewalks and hand rail placed on bridges	2
Farm crossing culverts replaced	69
Prince Edward Island Railway—	
Bridges strengthened	2
Bridges replaced with concrete arch culvert and fill	1
Steel stringer opening replaced with concrete culvert	1
New concrete culverts and pipe culverts constructed	2
Culverts replaced with concrete and pipe culverts	6
Culverts renewed	2
New Brunswick and Prince Edward Island Railway—	
New concrete pipe culvert constructed	1
Culverts replaced with concrete and pipe culverts	18
Culverts renewed	15
International Railway—	
Wooden culvert replaced with concrete pipe culvert	1
Vale Railway—	
New concrete pipe culverts constructed	2

Cape Breton Railway—	
Bridge strengthened by timber bents	1
York and Carleton Railway—	
Wooden culverts replaced with concrete pipe culverts	5
Moncton and Buctouche Railway—	
Wooden culverts replaced with concrete pipe culverts	3
Salisbury and Albert Railway—	
Wooden bridges and old iron girders replaced with steel spans	4
Wooden culverts replaced with concrete pipe culverts	5
Culverts strengthened	13
Elgin and Havelock Railway—	
Wooden culverts replaced with concrete pipe culverts	11
Culverts strengthened	7
St. Martin's Railway—	
Wooden bridge and trestle replaced with steel spans	2
New concrete substructures for bridges	2
Wooden culverts replaced with concrete pipe culverts	6
Culverts strengthened	28
Caraquet and Gulf Shore Railway—	
Trestles reconstructed aggregating 183 lineal feet	3
Bridges, trestles and cribwork structures strengthened	12
Wooden stringer culverts replaced with steel beams	7
Culverts strengthened	47
National Transcontinental Railway—	
New bridge erected	1
Bridges, culverts and trestles filled in	5
New culverts built	11
Culverts replaced	5
Culverts extended	3
Bridges and culverts repaired and strengthened	41
Farm crossing culverts replaced	20
Grand Trunk Pacific Branch—	
Pile bridge replaced with reinforced concrete trestle	1
Pile bridge built	1
Pile bridge replaced with concrete pipe and fill	1
Trestles filled in	2
Trestle strengthened	1
St. John and Quebec Railway—	
Pipe culvert replaced with concrete arch pipe and lowered	1

In addition to the above works, bridges and culverts on all railways were repaired, painted or partly renewed where necessary.

Concrete pipes of various sizes aggregating 11,203 lineal feet were manufactured by railway forces for use in the construction of pipe culverts on the various railway.

TURNTABLES

Turntables on the various railways were overhauled, repaired and painted where necessary.

TRACK SCALES AND FREIGHT SCALES

Intercolonial Railway.—The track scales at Deepwater, Halifax and at Riviere du loup were remodelled and replaced; new scales were installed in the freight sheds at Windsor Junction and Dartmouth.

National Transcontinental Railway.—Installation of a 150-ton track scale at Monk was completed; alterations were made to track scales at Edmundston, St. Leonards and Transcona.

STATION BEAUTIFICATION .

The work of beautifying the station grounds and yards with grass plots and flower beds was continued.

SURVEYS AND TRACK CENTERING

On the Intercolonial Railway, 44.25 miles of track were recentered, and 34.05 miles on the National Transcontinental Railway.

A preliminary survey, 5.49 miles in length, was made from Little Bras D'Or to the coal deposits in vicinity of Point Aconi.

Track and right of way surveys were made of the Cape Breton and Caraquet and Gulf Shore Railways. Right of way plans and descriptions, yard plans, bridge plans and other records of branch lines acquired during the year are in course of preparation.

A large number of surveys and plans of station yards, bridges, culverts, sidings, road diversions and lands were made in connection with improvements, new sidings and tracks, leases, deeds, claims, etc.

SIGNALS AND INTERLOCKING

Intercolonial Railway.—Automatic signals were installed between Campbellton and Tide Head. Four automatic block signals were installed at Maccan.

Pneumatic crossing gates were installed at Lutz and Church streets, Moncton, Prince and Ferry streets, Sydney, and at Heriot street, Drummondville.

Electric warning bell was installed at Bridge street, Sackville.

Naional Transcontinental Railway.—An electric interlocking system with the Bangor and Aroostock Railway at St. Leonards was completed and automatic signals installed at McGivney Junction. Train order signals were installed at Authier, Moonbeam and Pagwa.

Lotbiniere and Megantic Railway.—North semaphore at Villeroy diamond crossing was relocated.

ELECTRIC POWER AND LIGHTING

Intercolonial Railway.—At Sydney, car battery charging equipment and circuits were installed.

At Truro and Stellarton, feeder circuits were installed for purchasing power and motor and power circuits installed for driving shop machinery.

At Drummondville, an automatic control circuit to centrifugal pump for water supply was installed.

Auxiliary fire alarm system was installed at car and freight sheds, Halifax Ocean Terminals, and fire alarm boxes installed in freight shed extension at Deepwater, Halifax.

Electric lighting systems were extended to twelve buildings, platforms, subway and coaling plants.

An electric search light and electric signal gongs were installed on each of the ferry steamers S.S. "Scotia I" and S.S. "Scotia II."

TELEGRAPH REPORT

STATEMENT showing miles of railway, Quebec and Maritime Districts, operated by the Canadian Government Railways, by Telegraph, by Telephone, and by both, during the nine months ending December 31, 1920.

Railways	Miles of Railway operated by—				
	Telegraph	Telephone	Telegraph and Telephone	Pole Mileage	Wire Mileage
Intercolonial	877·63	625·64	nil	212·35	5,744·02
P.E.I. Railway	229·07	47·70	nil	57·55	103·96
I. N. R.			105·73	105·73	211·46
S. & A. Railway	44·77			44·77	44·77
Hampton & St. Martins		28·73		28·73	28·73
Transcontinental	1,568·78	419·93	6·40	1,988·84	6,487·73
St. John & Quebec		157·86		157·86	315·72
Moncton & Buctouche	nil	nil	nil	nil	nil
Elgin & Havelock	nil	nil	nil	nil	nil
York & Carleton	nil	nil	nil	nil	nil
Cape Breton Railway	nil	31·0	nil	31·0	31·0
Lotbiniere & Megantic	nil	30·0		30·0	30·0
Quebec & Saguenay		62·8			

W. A. KINGSLAND,
General Manager.

SESSIONAL PAPER No. 20

INTERCOLONIAL AND PRINCE EDWARD ISLAND RAILWAY EMPLOYEES' PROVIDENT FUND

Statement of Receipts and Expenditures During the Nine Months Ended December 31, 1920

Balance at the credit of the funds on March 31, 1920		$465,740 31
The contributions made by employees during the nine months, being one and one-half per cent of their monthly salary and wages were	$281,580 78	
The contributions made by the railways were	100,000 00	
		381,580 78
Amounts received for refunds, etc		398 48
Interest accrued (at three per cent)		10,440 70
		$858,160 27

The amount contributed by the employees is shown to exceed by $181,580.78 the amount contributed by the Railways. By reference to Section No. 4 of the Provident Fund Act, it will be noted that the maximum sum the Railways are authorized to contribute to the Fund in any one year must not exceed $100,000.

The expenditures were—

For retiring allowances	$251,600 69	
For contributions refunded in cases of deceased employees	8,690 02	
For contributions refunded, which were deducted in error	3,245 47	
For contributions refunded to discharged employees, etc	419 45	
Medical examination for probationers entering the service, etc	2,350 00	
Medical examinations for employees retiring from the service	22 00	
For election expenses	306 56	
For salaries and travelling expenses, secretary's office, and proportion of salary chief medical officer.	10,622 25	
For stationery, printing, postage, etc	484 40	
		277,740 84
Balance to the credit of the Fund on December 31, 1920		$580,419 43
It will be noted by the above statement of receipts and expenditures that the amount of contributions received from the Railways and from the employees during the nine months were		381,580 78
And the expenditures were		277,740 84
Showing that during the nine months the receipts exceeded the expenditures by		$103,839 94
The gross surplus, including interest, to the credit of the Fund on December 31, 1920, was		580,419 43

W. A. Kingsland,
Chairman.

C. B. Trites,
Secretary.

GRAND TRUNK PACIFIC

ANNUAL REPORT OF CANADIAN NATIONAL MANAGEMENT FOR THE YEAR ENDING DECEMBER 31, 1920

The Grand Trunk Pacific Railway has been operated under the receivership of the Minister of Railways and Canals since March 9, 1919. For some time the road was operated apart from Canadian National Railways, but in October, 1920, the management was transferred to the Canadian National Railways, and the general manager, under the receiver, is now the general manager for Canadian National Railways, Western Lines.

The following statements show in detail the result of the operation of the road for the year ending December 31, 1920, and supply as well as consolidated balance sheet, information as to capital stock, funded debt, and other statistical detail usually accompanying the annual reports of railway companies:—

GRAND TRUNK PACIFIC RAILWAY COMPANY

(IN RECEIVERSHIP)

CONSOLIDATED BALANCE SHEET

(Incorporating Accounts of Grand Trunk Pacific Branch Lines Co. and Grand Trunk Pacific Saskatchewan Railway Co.)

As at December 31, 1920

Fixed Assets—

ASSETS

Investment in road and equipment, including preliminary and unallocated expenses and cost of guarantee of bonds	$239,070,275 80	
Other properties	31,099 14	
Other investments	383,300 00	
Capital stock of subsidiary companies (other than railway companies)—Carried at	1 00	
		$239,484,675 94

Current and Working Assets—

Cash in bank and on hand	$ 653,940 53	
Balance due from agents' station balances, etc. (net)	633,113 58	
Miscellaneous accounts receivable (net)	3,843,805 34	
Working funds and unvouchered expenditure	105,000 00	
Material and supplies on hand (as per the books)	1,926,981 36	
		7,162,840 81

Deferred Charges—

Insurance premiums unexpired	$ 11,798 51	
Unadjusted debits (net balance)	193,862 92	
		205,661 43
Advances to subsidiary companies other than railway companies (net)		2,638,879 93
Profit and loss account		48,171,882 18
		$297,663,940 29

LIABILITIES

Capital Stock—		
Authorized—450,000 shares of $100 each		$ 45,000,000 00
Issued—249,420 shares on which there has been paid		$ 24,905,400 00
Long Term Funded Debt—		
Grand Trunk Pacific Railway Company	$148,782,100 86	
Grand Trunk Pacific Branch Lines Company	16,775,932 68	
		165,558,033 54
Receivers' Certificates		23,097,436 96
Dominion of Canada		59,612,232 23
Notes and account payable to Grand Trunk Railway Company		13,933,288 53
Current Liabilities—		
Audited vouchers and other floating liabilities	$ 3,555,447 29	
Pay-rolls	757,223 14	
Interest on funded debt and loans past due and accrued	6,244,878 60	
		10,557,549 03
		$297,663,940 29

C. E. FRIEND,
Comptroller.

We have examined the books and accounts of the Grand Trunk Pacific Railway Company, the Grand Trunk Pacific Branch Lines Company and the Grand Trunk Pacific Saskatchewan Railway Company for the year ended December 31, 1920, and have compared them with the above Consolidated Balance Sheet, and we certify that in our opinion, the foregoing Balance Sheet is properly drawn up so as to exhibit a true and correct view of the affairs of the company as at December 31, 1920, according to the best of our information and the explanations given us.

MARWICK, MITCHELL AND COMPANY,
Chartered Accountants.

TORONTO,

CAPITAL STOCK OF SUBSIDIARY COMPANIES

As at December 31, 1920

	No. of Shares Held	Per cent Paid-up per Share	Amount
Grand Trunk Pacific Telegraph Company	988	25	$ 24,700 00
Grand Trunk Pacific Terminal Elevator	5,000	100	500,000 00
	3	nil	.....
Grand Trunk Pacific Coast Steamship Company	138	100	13,800 00
Grand Trunk Pacific Development Company	29,990	100	2,999,000 00
	36,119		$3,537,500 00

FUNDED DEBT AT DECEMBER 31, 1920

GRAND TRUNK PACIFIC RAILWAY

	Principal	Interest Charged for year 1920
Guaranteed as to principal and interest by the Dominion of Canada		
3 per cent 1st mortgage bonds (Prairie)	$ 11,908,000 00	$ 357,240 00
3 per cent 1st mortgage bonds (Mountain)	56,132,000 00	1,683,960 00
4 per cent Sterling bonds	8,440,848 00	337,633 92
Guaranteed by Grand Trunk Railway Company of Canada		
4 per cent mortgage Prairie Section "A" bonds	10,206,000 00	408,240 00
4 per cent mortgage Moutnain Section "A" bonds	9,963,000 00	398,520 00
4 per cent 1st mortgage Lake Superior Branch bonds	7,533,000 00	301,320 00
5 per cent secured Sterling notes	9,720,000 00	486,000 00
4 per cent perpetual debenture stock (conditionally guaranted)	34,879,252 86	1,395,170 12
	$148,782,100 86	$5,368,084 04

GRAND TRUNK PACIFIC BRANCH LINES

Guaranteed by Government of Saskatchewan			
4 per cent 1st mortgage Saskatchewan Lines Sterling bonds..	$11,315,052 00		
Less in Treasury £1,100.. ..	5,025 24		
		11,310,026 76	452,387 95
4½ Terminal Sterling bonds..		1,881,792 00	84,680 64
Guaranteed by Government of Alberta			
4 per cent 1st mortgage Alberta Lines Sterling bonds..	$1,159,596 00		
Less in Treasury £1,200.. ..	5,482 08		
		1,154,113 92	46,150 24
4 per cent 1st mortgage Alberta Lines Sterling bonds..		2,430,000 00	97,200 00
		$ 16,775,932 68	$ 680,418 83
		$165,558,033 54	$6,048,502 87

OPERATING REVENUE, OPERATING EXPENSES AND NET EARNINGS.

Year ended December 31, 1920, compared with Previous Fiscal Year

OPERATING REVENUES.

Per cent.	1920.	Class.	1919.	Per cent.
	$ cts.		$ cts.	
17·45	2,514,630 31	Passenger	2,181,805 21	19·31
75·10	10,820,994 16	Freight	8,116,364 95	71·86
1·04	150,114 61	Mails	144,034 01	1 27
2·54	365,385 77	Express	277,394 19	2·45
3·87	557,425 41	Miscellaneous	575,019 51	5·11
100·00	14,408,549 66		11,294,617 87	100·00

OPERATING EXPENSES.

Per cent.	1920.	Class.	1919.	Per cent.
	$ cts.		$ cts.	
33·20	8,147,888 61	Maintenance of way and structures	5,057,098 29	28·76
28·00	6,871,192 13	Maintenance of equipment	5,251,895 16	29·86
1·29	316,139 00	Traffic expenses	293,904 11	1·67
34·84	8,550,460 86	Transportation expenses	6,265,460 07	35·62
1·00	244,428 53	Miscellaneous	218,048 34	1·24
1·67	412,954 47	General expenses	501,161 40	2·85
100·00	24,543,063 60		17,587,567 37	100·00

SUMMARY OF REVENUES AND EXPENSES.

Per cent.	1920	Class	1919	Per cent.
	$ cts.		$ ct.	
	14,408,549 66	Operating revenues	11,294,617 87	
170·34	24,543,063 60	Operating expenses	17,587,567 37	155·71
—70·34	— 10,134,513 94	Net earnings	6,292,949 50	55·71
100·00				100·00

INCOME STATEMENT FOR TWELVE MONTHS ENDING DECEMBER 31, 1920

Revenue	$14,408,549 66	
Subsidiary miscellaneous earnings	1,678,282 77	
		$16,086,832 43
Working expenses	$24,543,063 60	
Taxes, rentals, joint facilities, etc.	760,900 24	
		25,303,963 84
Loss on operation		$ 9,217,131 41
Fixed Charges—		
Grand Trunk Pacific	$ 5,368,034 04	
Affiliated companies	680,418 83	
		6,048,502 87
Interest on demand and short term notes and loans—		
Government	$ 1,661,468 33	
Others	586,506 33	
	$ 2,247,974 66	
Less: Profit on exchange	57,250 00	
		2,190,724 66
Deficit carried to Profit and Loss statement		$17,456,358 94

PROFIT AND LOSS STATEMENT AS AT DECEMBER 31, 1920

Deficit on income account for the year	$17,456,358 94	
Delayed income Drs. and Crs. debit balance	100,568 20	
		$17,556,927 14
Deficit brought forward at December 31, 1919		30,614,955 04
Total deficit at December 31, 1920, carried to balance sheet		$48,171,882 18

EARNINGS, EXPENSES AND NET EARNINGS PER MILE FOR YEAR ENDING DECEMBER 31.

Year.	Average Miles Operated.	Earnings.	Expenses.	Net Deficit.
		$ cts.	$ cts.	$ cts.
1919	2,807·3	4,023 30	6,264 94	2,241 64
1920	2,807·3	5,132 53	8,742 58	3,610 05

FIXED CHARGES PER MILE OF ROAD.

	1920.	1919.
	$ cts.	$ cts.
Amount required per mile of Road to pay Fixed Charges	2,934 93	3,309 47

PASSENGER, FREIGHT AND MISCELLANEOUS STATISTICS.

Compared with Previous Fiscal Year.

—	1920.	1919.	x Increase or — Decrease.
Passenger Traffic:—			
Passenger carried (earnings Revenue)	824,732	716,238	x 108,494
Passengers carried one mile	92,262,859	96,564,164	x 15,698,695
Passengers carried one mile per mile of road	32,865	27,273	x 5,592
Average distance carried	111·87	106·89	x 4·98
Total passenger revenue	$ 2,491,318 48	$ 2,161,565 20	x $ 329,753 28
Average amount received per passenger	$ 3,020 07	$ 3 01·79	x $ 00·28
Average amount received per passenger per mile	c. 02·700	c. 02·823	—c. ·123
Total passenger train earnings	$ 3,201,078·32	$ 2,772,264·06	x $ 429,814·26
Passenger train earnings per train mile	$ 1 62·63	$ 1 61·53	x $ 01·10
Freight Traffic:—			
Revenue tons carried	2,853,116	2,274,752	x 578,364
Revenue tons carried one mile	1,111,628,503	746,631,127	x 364,997,376
Revenue tons carried one mile per mile of road	395,978	265,961	x 130,017
Average distance haul of one ton	389·62	328·22	x 61·40
Total freight revenue	$ 10,757,773 29	$ 8,073,267 64	x $ 2,684,505 65
Average amount received for each ton of freight	$ 3 77·05	$ 3 54·91	x $ 22·14
Average revenue per ton per mile	c. 0·968	c. 1·081	—c. ·113
Total freight train earnings	$ 10,875,232 47	$ 8,175,158 74	x $ 2,700,073 73
Freight train earnings per train mile	$ 3 34·042	$ 3 02·702	x $ 0 31·340
Train Mileage:—			
Mileage of passenger trains	1,539,184	1,284,628	x 254,556
Mileage of freight trains	2,819,620	2,269,104	x 550,516
Mileage of Mixed trains	435,975	427,546	x 8,429
Mileage of special service trains	53	4,081	— 4,028
Expenses per traffic train mile:—			
Maintenance of way and structures	$ 1 69·93	$ 1 26·89	x $ 0 43·04
Maintenance of equipment	$ 1 43·30	$ 1 31·78	x $ 0 11·52
Traffic expenses	c. 06·59	c. 07·37	—c. 00·78
Transportation expenses—rail	$ 1 78·30	$ 1 57·22	x $ 0 21·08
Transportation expenses—water	c. 00·03		x c. 00·03
Miscellaneous operations	c. 05·10	c. 05·47	—c. 00·37
General expenses	c. 08·61	c. 12·57	—c. 03·96
	$ 5 11·86	$ 4 41·30	x $ 0 70·56

SUMMARY OF EQUIPMENT.

—	At December 31. 1920.	1919.
Locomotives	281	259
Sleeping and dining cars	52	52
Passenger coaches	181	182
Baggage, mail and express cars	121	121
Business cars	.....	.....
Freight, refrigerator and stock cars	15,445	15,098
Conductors vans	135	136
Boarding, tool, auxiliary cars	.....	.....
Steam shovels and snow equipment	519	492

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DESCRIPTION OF FREIGHT CARRIED YEARS ENDED DECEMBER 31.

—	1920.			1919.		
	Quantity.	Tons.	%	Quantity.	Tons.	%
Flour and other mill products	587,640 Sax.	29,382	1·03	901,120 Sax.	45,056	1·98
Wheat	27,901,666 Bus.	837,050	29·34	24,445,733 Bus.	733,372	32·24
Oats	12,197,647 "	207,360	7·27	8,720,118 "	148,242	6·52
Barley and other grains	5,881,153 "	171,792	6·02	1,950,386 "	43,250	1·90
Hay and straw		32,561	1·14		31,328	1·38
Fruit (fresh)		2,535	0·09		3,182	0·14
Vegetables and other agricultural products		9,457	0·33		5,401	0·24
Horses	9,741 Hd.	8,280	0·29			
Cattle	68,646 "	41,188	1·44		48,236	2·12
Sheep and hogs	57,555 "	5,755	0·20			
Orher animal products		16,881	0·59		14,228	0·62
Coal and coke		848,721	29·76		730,824	32·13
Bldg. material, stone, etc.		50,141	1·76		35,902	1·58
Ores		744	0·03		647	0·03
Other mine products		4,718	0·16		2,960	0·13
Logs, lumber, etc	112,729 M.F.	169,094	5·94	102,931 M.F.	154,397	6·79
Cordwood	21,107cds.	29,550	1·03		(Inc. with	logs, etc.)
Pulpwood					"	"
Other forest products		9,253	0·32		8,808	0·39
Immigrants' effects and household goods		7,755	0·27		5,386	0·24
Petroleum products		171,849	6·02		118,591	5·21
Paper, wood-pulp, etc		1,570	0·05			
Other manufactures		119,562	4·19		79,607	3·49
Merchandise and miscellaneous		77,918	2·73		65,335	2·87
Total tons		2,853,116	100·00		2,274,752	100·00

MILES OF RAILWAY AT DECEMBER 31, 1920

Grand Trunk Pacific Railway

Owned—

Prairie Division—

Winnipeg to Wolf Creek	891.03	
Branches	17.15	
Mountain Division—		
Wolf Creek to Prince Rupert	744.22	
Snaring Junction to Pocahontas	15.58	
Branches	19.11	
Lake Superior Division—		
Superior Junction to Port Arthur	188.80	
Branches	5.64	

Agreements—

Winnipeg to G.T.P. Junction	1.70	
Transfers and connections	2.88	

Trackage Rights—

Transfers and connections—

Manitoba	0.81	
Saskatchewan	1.13	2.51
Alberta	0.57	
Main line joint with G.N.R.—Portage la Prairie	1.00	
Main lines joint with C.P.R.—Saskatoon	11.95	
Main line joint C.N.R.—Edmonton	1.50	
Main line joint with C.N.R.—Imrie to Chip Lake	13.76	
Main line joint with C.N.R.—Obed to Snaring	59.81	
Main line joint with C.N.R.—Geikie to Redpass Junction	35.27	
		2,011 91

GRAND TRUNK PACIFIC BRANCH LINES CO.

Owned—

Yorkton Branch—Melville to Yorkton	25 75	
Yorkton Extension—Yorkton to Canora	28.88	
Melville, Regina—Melville-Regina	97.50	
Regina Boundary—Regina-Northgate	154.21	
Regina, Moosejaw—Regina to Moosejaw	43.46	
Moosejaw N.W. Branch—Moosejaw to Riverhurst	69.12	
Prince Albert Branch—Young to Prince Albert	111.50	
Biggar, Calgary Branch—Biggar to 4th Meridian	104.08	
Battleford Branch—Oban-Battleford	48 57	
Cutknife Branch—Battleford End of Steel	49.86	
Calgary Branch—Tofield-Calgary	202.41	
Alberta Coal Branch—Beckerdike-Lovett	56.33	
Yorkton Branch	0.49	
Regina Branch	0.74	
Prince Albert Branch	0.79	
Calgary Branch	3.71	
Alberta Coal and Mountain Parts	7.78	

Agreements—

Mountain Park Coal Spur	30.57	
Yorkton Branch	0.14	
Melville-Regina Branch	0.39	
Regina-Boundary Branch	0.11	
Prince Albert Branch	0.11	
Cutknife Branch	0.31	
Calgary Branch	0.51	

Trackage Rights—

Yorkton Branch	0.24	
Yorkton Extension	0.08	
Melville-Regina Branch	1.07	
Regina-Boundary Branch	0.08	
Prince Albert Branch	0.11	
Cutknife Branch	0.02	
Calgary Branch	0.02	
Alberta Coal and Pacific Pass Yards	2.54	
		1,041.48

GRAND TRUNK PACIFIC SASKATCHEWAN RAILWAY

Owned—

Weyburn Branch—Talmage to Weyburn	15.21	
		15.21
		3,068.60

LOCATED AS FOLLOWS:

Ontario	194.44
Manitoba	215.25
Saskatchewan	1,175.56
Alberta	770.56
British Columbia	712.79
	3,068.60

SUMMARY OF MILEAGE

MILEAGE OWNED BY GRAND TRUNK PACIFIC RAILWAY SYSTEM

Owned mileage operated	2,707.48
Lake Superior Division leased to Canadian Government Railways	194.44
	2,901.92
Lines operated under Agreement	36.72
Lines operated under Trackage Rights	129.96
	3,068.60
Average miles operated for fiscal year	2,807.3

SESSIONAL PAPER No. 20

Committee of Management

The Grand Trunk Railway Acquisition Act, 1919, and the agreement of March 8, 1920, between the Canadian Government and the Grand Trunk Railway Company, provided for the creation of a Committee of Management consisting of five persons, two to be appointed by the Grand Trunk, two by the Government and the fifth by the four so appointed. The functions of this committee were to insure the operation of the Grand Trunk System (in so far as possible to do so) in harmony with the Canadian National Railways, the two systems to be treated, in the public interest, as nearly as possible as one system. The committee were also empowered (subject to the consent of the Governor in Council) to borrow from the Government on Grand Trunk notes, or other obligations or securities approved of by the Governor in Council, for the carrying on of the operation or improvement of the Grand Trunk System.

This Committee of Management was duly formed and comprised the following personnel:—

Mr. Howard G. Kelley, President, Grand Trunk Railway, (Chairman).
Mr. C. A. Hayes, Vice-President, C. N. Rys. (Government Representative).
Mr. S. J. Hungerford, Vice-President, C. N. Rys. (Government Representative).
Mr. W. D. Robb, Vice-President, G. T. Ry. (Grand Trunk Representative).
Mr. Frank Scott, Vice-President and Treasurer, G. T. Ry. (Grand Trunk Representative).

The first meeting took place May 21, 1920, and meetings were held periodically thereafter as found necessary.

Upon assuming office the Committee of Management arranged for the appointment of sub-committees composed of the local officers of both railways in different districts, which sub-committees duly considered and reported upon various items of consolidation or improvement. These matters were then submitted to the Committee of Management for deliberation, and the rulings given were transmitted through proper channels to the local officers concerned.

The Committee of Management ceased to function on May 12, 1921, the date upon which the Grand Trunk shareholders agreed to turn over the Grand Trunk to the Government.

The Committee of Management was able to do much useful work in the unification and consolidation of facilities with material saving in cost of operation and maintenance. Duplicate stations were eliminated at points where both lines touched; physical connection was made at certain points and joint trackage arranged for where formerly parallel trackage had been maintained by each company; economies were effected in the handling and routing of joint freight and passenger business and an interchange of traffic arranged which involved a considerable saving in train miles. Express services were also consolidated and joint representation of freight and passenger agencies provided at prominent American points. These activities are estimated by the Committee of Management to have involved a saving of $1,778,826 per annum, distributed as follows:—

	Capital Expenditure.	Expense per annum.	Saving per annum.	C.N. Rys. credit to capital from salvage.
	$	$	$	$
Quebec District	77,736	4,664	422,843	
Eastern Ontario District	313,671	67,865	850,533	338,091
Western Ontario District	199,776	12,191	318,955	36,986
Traffic departments		76,204	164,582	
Express companies	26,600	1,596		
General subjects			2,913	
Total	617,777	162,520	1,778,826	375,077

REPORT OF W. A. BOWDEN, CHIEF ENGINEER OF THE DEPARTMENT OF RAILWAYS AND CANALS

The through water route between Montreal, at the head of ocean navigation, and Fort William and Port Arthur, on the west shore of lake Superior, comprises 74 miles of canal, with forty-eight locks and 1,155 miles of river and lake waters, or a total of 1,229 miles. The minimum depth of water on this route is 14 feet. From Montreal to Duluth, on the southwest end of lake Superior, the total distance is 1,354 miles, and to Chicago 1,286 miles. Connection is made with the Canadian Pacific Railway from points west and south at Fort William and Port Arthur (6 miles apart). From Fort William connection with the main transcontinental line of the Canadian National Railways is made by the branch line originally constructed by the Grand Trunk Pacific Railway, but now operated by the Canadian National Railways.

On this through route the approaches to the canals and the channels of the intermediate river reaches are well defined, and are lighted with gas buoys under the control of the Department of Marine and Fisheries, admitting of safe navigation in the hands of competent pilots, both by day and night. The Lachine, Soulanges, Cornwall, Welland and Sault Ste. Marie canals are lighted throughout by electricity, and electrically operated. The Farran's Point canal is lighted by acetylene gas.

Of the minor systems, the Murray, Trent, Rideau, and Ottawa River canals may be considered geographically as branches of the through east-and-west route. In operation, however, these canals serve a distinct traffic of more local nature. Isolated from the systems just mentioned, the navigation of the Richelieu river, from its junction with the St. Lawrence at Sorel to lake Champlain, is effected by means of the St. Ours lock and the Chambly canal; while in the extreme east the St. Peter's canal provides communication between the Bras d'Or lakes of Cape Breton island and the Atlantic ocean.

A full statement of the various canals and canalized waters now in operation, with their mileage, limiting dimensions, etc., is the subject of a separate departmental publication, and a summary of this data is appended to this report.

Lachine Canal

Navigation on this canal suffered no serious interruption during the last navigation season. The most extensive work carried on consisted in the construction of a permanent cut-off between the St. Pierre river, at its crossing under the canal at Cote St. Paul, and the canal. Racks were placed at the entrances to both the St. Henry and Atwater Avenue syphons. Among smaller improvements made may be mentioned the sand blasting and painting of four canal bridges, the reconstruction of regulating weir No. 3, the placing of a number of cast-iron mooring posts and the construction of a concrete wall on the centre pier of Wellington Street bridge.

Soulanges Canal

At lock No. 4 in the carrying out of repairs to the apron at the foot of the lock, it was found necessary to install a 42-inch drain pipe through the apron and breast wall of lock No. 3, and a double 42-inch pipe through the breast wall of lock No. 2. This allows of the complete drainage of reaches between locks 2, 3 and 4. Upwards of twenty-six farmers' bridges were rebuilt in concrete, the embankment at the eastern end of lock No. 3 was reinforced with steel piling, and the work of constructing the interlocking steel cut-off and concrete apron above lock No. 4 was carried to completion.

Cornwall Canal

This canal was operated continuously through the season of navigation with but two exceptions. On October 31 the steamer *Compton*, of the Geo. Hall Coal Company, carried away the two upper gates of lock No. 17, causing also considerable damage to the earth slopes at the lower lock from the rush of water, and to several light poles. Repairs which permitted of the resumption of navigation were completed within eighteen hours of the accident. At lock No. 18, on June 8, the steamer *Nicaragua*, of the Canada SS. Lines, collided with and damaged the upper gates. The damage had been repaired and navigation proceeded again within a few hours.

Among the more important repairs and construction works carried out during the year may be mentioned the removal and rebuilding in concrete of the top of the Pitt Street wharf at Cornwall, the construction of fifty-five keel blocks in the repairing basin, and the rebuilding of one of the floating booms above lock No. 21.

The work of constructing a head-race from a point on the south side of the canal about half a mile west of the Cornwall swing-bridge to the St. Lawrence river for the supply of power to the Canadian Cottons Company, and the erection of a power-house, which had been commenced by that company in February, 1920, was proceeded with during the past year. Excavation for the head-race has been completed and work on the power-house is now well under way.

Farran's Point Canal

An accident occurred on September 2, when a barge of the Geo. Hall Coal Company collided with and caused considerable damage to a portion of the north entrance wall of the canal. Repairs were promptly made at the expense of the owners of the vessel.

The usual maintenance repairs were attended to, but no extensive construction work carried out.

Rapide Plat Canal

Owing to the low water in the river during the past season of navigation, this canal was used quite extensively by downbound vessels.

The usual repairs such as the renewal of gates and the maintaining in good order of slopes and protection walls were attended to.

Galops Canal

Minor repairs only and small renewals were found necessary during the year. The canal was operated without interruption to traffic.

Murray Canal

This canal, which is an open waterway 80 feet in width, with 12 feet depth at low water, across the isthmus of the Prince Edward County peninsula, connecting the bay of Quinte with lake Ontario, is without locks. No special work was required in the maintenance of this canal during the past season.

Welland Canal

This canal was in operation during a period of eight months. The through traffic of the canal was slightly less than that of the year before.

Several accidents occurred during the year. The steamer *Stormont* on April 29 carried away two gates at lock No. 3. Traffic was delayed about nineteen hours

before all the necessary repairs had been attended to. On July 11 the steamer *Maplegrove* carried away the lower gates of lock No. 2, the vessel itself being severely damaged. A delay to traffic was occasioned for a period of thirty-three hours. At lock No. 4 the two upper gates were struck and carried out on July 27 by the steamer *Oatland* and navigation delayed for about thirteen hours. The last accident of the season occurred on August 3, when the steamer *Robert H. Rhodes* was being raised in lock No. 9. Due probably to the lower gates not being properly mitred when valves in the upper gates were opened, the two lower gates were broken over. The vessel was undamaged and navigation proceeded within fourteen hours.

New Canal.—The roadway along the easterly bank of the canal, mentioned in last year's report as under construction, was completed with the exception of about a mile at Welland Junction. At the head of old lock No. 1, Port Dalhousie, a fixed concrete highway bridge was built, replacing the old wooden bridge. A large number of minor repairs were attended to, such as the rebuilding of a portion of the westerly wall at lock No. 3, the construction of a concrete toe wall below lock No. 6, and the rebuilding of the transmission line from Feeder Junction to Raney's Bend.

Old Canal.—At lock No. 21 a concrete bridge was constructed giving access to the gate yard. The old wooden swing-bridge at lock No. 7 was replaced by a concrete bridge of fixed span. Various minor repairs also received attention.

Canal Feeder.—The old wooden swing-bridges at Marshville and Pettit Road were replaced by fixed span concrete bridges. Work on the concreting of the apron at Dunnville dam was completed and the easterly retaining walls at the dam and bridge were built in concrete. A large amount of rubble stone was placed below the apron of the dam to protect the piles from scour. At the entrance to the Charles Ross mill-pond an old wooden bridge was replaced by an earth fill.

Port Colborne Elevator.—Following the explosion of August, 1919, the elevator did not resume operations until September, 1920. As a consequence comparatively little business was done last season. A total of 1,488,826 bushels was handled before the close of navigation.

Welland Ship Canal

For a detailed description of the various works which it is proposed to undertake in the carrying out of this work, it will be necessary to refer back to the report of the engineer in charge contained in the annual report of this department for the fiscal year 1913-14, page 359. In the present report, therefore, a brief resumé of the general scheme involved may not be out of place.

The proposed ship canal leaves lake Ontario at the mouth of Ten-mile creek, about three miles east of Port Dalhousie, follows an entirely different route from the present canal as far west as Allansburg, about half-way across the peninsula, and from here proceeds along the course of the present canal to Port Colborne on lake Erie. The total distance traversed from lake to lake will be 25 miles. The difference of level between the two lakes, 325½ feet, will be overcome by seven lift locks, each having a lift of 46½ feet. The locks are to be 800 feet long and 80 feet wide in the clear and will provide a depth of 30 feet of water over the mitre sills. The width of the canal prism is to be 200 feet. A new breakwater, now under construction, will be built at Port Colborne, extending 2,000 feet farther into the lake than the present breakwater. Extensive harbour works are contemplated for the lake Ontario entrance at Port Weller. For purposes of construction, the canal is divided into nine sections or contracts numbered from the lake Ontario end. During the past fiscal year, work has been carried on on sections 1, 2, 3, and 5.

Following is a brief summary of the work which has been in progress on the various sections during the past fiscal year:—

Section No. 1.—Dredging work in the harbour at Port Weller was commenced about the middle of July, about 130,000 cubic yards of material being excavated during the past season. The coping wall on cribs 8W to 16W was completed. No new concrete cribs were constructed, but those stored at Port Dalhousie were removed to Port Weller, and preparations have been made for the construction of the remaining cribs. Considerable progress was made on the embankments of the harbour. Concrete work has proceeded at lock No. 1 and the supply culvert in the west wall has been completed. The piers and abutments for bridge No. 1 have been completed and work on two floor spans will be commenced immediately.

Section No. 2.—Work on this section was not started till July and operations were considerably retarded by the difficulty experienced in securing an adequate supply of cement. At lock No. 2 considerable excavation has been done and a start made on the concrete work. At lock No. 3 work of a preliminary nature only has been under way. The fixed portion of bridge No. 3, consisting of six spans, has been completed. The pier of bridge No. 4, which had been pushed out of position by the landslide of four years ago, was removed, the requisite new piles driven and the new pier constructed up to the grade of bottom of canal.

Section No. 3.—Operations on this section also were retarded through the difficulty of obtaining cement. Good progress was made, however, on the excavation work and concreting was begun at the upper west entrance wall of lock No. 7 and carried nearly to completion.

Section No. 5.—Dredging on this section was carried on throughout the entire season, upwards of 506,000 cubic yards of earth and rock being taken out.

Construction Railway.—Considerable repair work was found necessary, such as tie removals, etc. The track scales were overhauled and put into serviceable condition. After work had commenced on section No. 3, traffic conditions became fairly heavy, and as many as seventy-one trains have been handled over the line in a single day.

Sault Ste. Marie Canal

In the past fiscal year this canal was in operation during the entire season of navigation, or for a period of eight months. No accidents of a serious nature occurred. There was a slight increase in passenger traffic through the Canadian canal over that of the year before, amounting to 5 per cent. The increase, however, over the season of 1918 showed an advance of 58 per cent. Freight tonnage through the Canadian canal showed a falling-off of 40 per cent from the previous year, but the freight tonnage of Canadian vessels passing through both canals increased by 6 per cent. This condition may be accounted for by the fact that many Canadian vessels find it necessary to make use of the deeper draught locks of the American canals.

Repairs and improvements of a minor nature only were undertaken during the year, such as the painting of the movable dam, cleaning out of lock culverts and repairing of lock floor and valve shafts.

St. Annes Lock

Apart from the usual maintenance, the only construction work carried out at this lock during the past year was the rebuilding for a length of 318 feet of the concrete ice-breaker and the river face of the upper wing dam.

Carillon and Grenville Canals

Portions of the apron of the Carillon dam, which had been carried away by the ice shove, were repaired. Two of the smaller breaks will be attended to during the next fiscal year. Two small bridges from the main road to the locks at Carillon were rebuilt with concrete piers and abutments and a steel superstructure.

Rideau Canal

Water conditions were favourable during the entire navigation season and no serious interruptions to traffic from this or any other cause occurred. During the winter also, the supply of water for power purposes was at all times adequate. The lockages of the past season showed a slight decrease compared with those of the preceding year.

Among the more important repairs and works of construction carried out, the following may be noted: At the Ottawa lock station, the old mitre sills in locks Nos. 7 and 8 were renewed in concrete. Considerable repairs and improvements were made to the lock-house. At Hartwell's lock, the gates were renewed, and the concrete wall, begun last year, was completed. The portion of this wall running north to the Canadian Pacific Railway crossing is now under construction. At Black rapids, the shoal below the retaining dam was dredged out. The piers of the dam at the White Horse, Long Island lock station, were repaired, and the gravel shoal below the lock was dredged. New swing-bridges were built at Beckett's landing and at Nicholson's lock. At Merrickville, the three bridges were refloored. A new pivot pier was constructed under the swing-bridge at Old Slys lock station, and the floor of the bridge renewed. The old timber retaining dam at Smith's Falls was rebuilt in concrete and the regulation of the water at this point has been greatly facilitated thereby. The timber rest piers of the swing-bridge were also renewed in concrete. The filling behind the retaining wall, which lies between the lock and the swing-bridge on the north side of the canal, was completed. On the Perth branch, the tow-path between Craig and Beckwith streets was graded and macadamized. At Chaffey's lock station, the old timber waste weir was rebuilt in concrete. At Jones's lock station, the timber rest pier on the west side of the swing-bridge was taken down and rebuilt in concrete, and various minor repairs were made to the house. The clay shoal below the lower lock at Kingston Mills was dredged to provide a suitable depth of water.

St. Ours Lock

This lock was in continuous operation. Small repairs were made to the foundations of the entrance mooring piers, and to the eastern end of the dam.

Chambly Canal

The old swing-bridge at crossing No. 6, near Chambly, was taken out and replaced by a heavier structure suitable to modern road traffic. At locks Nos. 1, 2 and 3, twelve old balance beams were replaced with new machinery.

Trent Canal

The route of the Trent canal, as now in operation or under construction, lies between Trenton, on the bay of Quinté, where direct connection is made with lake Ontario, and Honey harbour, on Georgian bay, from which the waters of the Great Lakes are at once accessible. The canal is made up of a series of lakes and rivers con-

nected by relatively short lengths of artificial cuttings. Connection between the water levels of the various reaches is effected by locks. The route may be briefly described as follows: Between Trenton and Rice lake the canal follows the line of the Trent river. Passing through Rice lake it enters the Otonabee river, the route of which is followed to its source in Katchiwano lake. From this lake the line of the canal passes in succession through Clear lake, Stoney lake, Lovesick lake, Buckhorn lake, Pigeon lake, Sturgeon lake and Cameron lake to the west side of Balsam lake. From here a connection is made by an artificial cutting with a small lake about two miles westward, and from the latter lake another cutting makes connection with Cranberry lake. From the south end of Cranberry lake connection is made with lake Simcoe by another artificial cutting. Pasing through lake Simcoe the route of the canal continues to artificial cutting. Passing through lake Simcoe the route of the canal continues to the Severn river, the line of which is followed to the Georgian bay outlets at Honey harbour and Port Severn. From Trenton the canal rises to a summit at Balsam lake, the level of which is about 597 feet above that of lake Ontario. From Balsam lake to Georgian bay there is a fall of 262 feet. Between Trenton and Washago the canal has been practically completed and open to traffic since June, 1918, or for a distance of 203.6 miles. On the westerly portion of the route of the canal, or between lake Couchiching and Georgian bay, various works are under construction, a description of which will be found under a subheading farther on in this report. When completed, the total length of the canal from lake to lake will be about 236 miles.

Canal in Operation

As already stated in previous reports, that portion of the Trent canal which lies between Trenton and Rice lake was formally opened for traffic on June 3, 1918. The extent of the canal now in operation may therefore be stated as 203.6 miles, or between Trenton and Washago at the head of lake Couchiching. In addition to this is maintained the Lindsay branch, 30 miles in length, and various other channels aggregating in all about 60 miles. The total extent of canal and canalized waterways maintained in operation is therefore slightly over 300 miles.

Of the various repairs and improvements effected during the year, the following may be mentioned. A rubble masonry wall, 100 feet long, was constructed and backfilled below dam 9, connecting the east abutment pier of the dam with the existing concrete retaining wall at the foot of the canal embankment, thus protecting against scour. Above lock No. 12 the catchwater ditch at the toe of the west embankment was regraded for a distance of 1,700 feet, a 12-inch pipe being laid to divert the water to the sewer leading under the canal. At Campbellford, two of the surplus 12-foot piers were used to provide wharfage for the storehouse. The Hydro-Electric Power Commission commenced work on their power-house at lock No. 12 last July and have proceeded with it ever since. A new hydraulic engine for the operation of the gates of the Peterborough lift lock has been delivered at the site. The rebuilding of the lock wall at the southeast quoin of lock No. 27 was completed. In May of last year, the construction of the new dam at Lakefield was commenced, the north half completed and connection made with the old dam. Dockage facilities were improved at Robbins wharf. The new dam at Bobcaygeon, commenced last April, was practically completed by the end of November. Extensive dredging operations were carried on by the spoon dredge *Fenelon* both at Handbridge's and Dangerfield Bar. Four piers at Fenelon were torn down and rebuilt. Material for the new Lindsay wharf has been delivered and work will be started during the coming season. Residences at locks Nos. 3 and 14 were completed. At Peterborough, the timber shed and pattern house were completed. The north and south dams at Drag lake were completed by the beginning of October, after which the old dam was demolished. The Missisaugua dam was commenced in July, and the work progressed satisfac-

torily up to the close of the season. The Loon lake dam was rebuilt during the month of October. Workman's dam, on the Gull river, was rebuilt in the months of November and December, as well as a log slide at the same point. New dams were also constructed at Miskwabi lake and Bass lake rapids.

Though the snowfall and water precipitation of the past year had been below the average, it was found possible to maintain a good flow in the Otonabee river all through the winter from the storage of the Kawartha lakes.

Canal Under Construction

The portion of the canal now under construction lies, as already noted, between Washago, at the head of lake Couchiching, and Honey harbour and Port Severn on Georgian bay, and is known as the Severn Division. This division is for convenience subdivided into four sections, namely, the Port Severn Section, from Port Severn on Matchedash bay to Gloucester pool; Section No. 1, from Honey harbour to the Big chute on the Severn river; Section No. 2, extending from the last-named point up the Severn river to MacDonald's chute; and Section No. 3, from MacDonald's chute to the head of lake Couchiching.

Port Severn Section.—During the past fiscal year no new work was performed on this section. The lock and dams at Port Severn, the principal works on this section, have already been completed.

Section No. 1.—The length of this section is about 17 miles. The work to be undertaken consists in the construction of three locks at South Honey harbour, Little chute and Big chute, respectively, together with regulating dams at Big chute, the outlet of Six mile lake, and at White's portage, while between Big and Little chutes several core dams are to be built. In the river and lake channels there will be a large amount of granite rock excavation. A contract for the work was let in January, 1919, and considerable work was done in the ensuing year. Work under the same contract was continued during the past fiscal year, but operations were confined to the completion of White's Portage dam, corewall "C," and the regulating sluice near the site of Little Chute lock, together with rock excavation on the "centre cut." In addition to the foregoing, considerable less extensive miscellaneous work was carried on by the contractors, such as the unloading of materials, construction of storehouses and floating docks, repairing of machinery and the construction of a rock-filled timber dam at the Hungry bay outlet of Six-mile lake.

Section No. 2.—The principal item of work to be performed on this section, viz., the construction of the Canadian National Railway high-level bridge at Ragged rapids, was completed during the fiscal year.

Section No. 3.—This portion of the canal extends from deep water in lake Couchiching to the easterly end of Section No. 2, a distance of 15¼ miles. The work to be performed consists in the construction of one lock of 20-feet lift, a diversion of the Canadian National Railway, two highway swing-bridges, one highway fixed bridge, one railway swing-bridge, several control dams, and a large amount of rock and earth excavation. In January, 1919, a new contract for the work was entered into with the Randolph Macdonald Company, their contract of 1914 having been surrendered on account of war conditions. During the past year the work performed consisted principally in the levelling off of the Canadian National Railway embankment across the canal prism after the tracks had been diverted to the new bridge, and various other excavation works necessary to provide a through channel for boats of light draught, installation of lock gates and machinery at the Couchiching lock,

the construction of a wooden truss highway bridge at the lower end of this lock, the erection of a steel highway bridge at Rama road, Washago, and various minor works, such as stone protection to banks, sodding and seeding, etc.

On that portion of the Trent canal which has, since June, 1918, been in regular operation, or between Trenton and Washago, certain works have also been performed by the construction forces, among which may be mentioned the building of new dams at Lakefield and Nassau. Work on the Lakefield dam is now well under way, but thus far only preliminary operations have been carried out at the site of the Nassau dam. At Bobcaygeon, a contract has been let covering the construction of a new canal, lock, dam and dry dock. Work on this contract has been prosecuted vigorously during the past year. The concrete wing wall at the northerly end of the dam has been completed, and considerable concrete work done in the dry dock. The dam has been practically completed. Work on the lock has been greatly retarded owing to many difficulties encountered in unwatering operations, and thus far but little progress has been made.

During the past winter, survey work was continued at Pigeon lake and between Lakefield and Burleigh falls. It is hoped that this important work will be continued next season.

St. Peter's Canal

This canal which was constructed between the years 1912 and 1917, and connects the Bras d'Or lakes with St. Peters bay on the southeast coast of Cape Breton island, consists of a tidal lock 300 feet in length and 48 feet in breadth, and provides for a minimum depth of water on the lock sills of 18 feet.

Minor repairs only were found necessary during the fiscal year.

Enlargement of the St. Lawrence Canals

For many years the question of the ultimate enlargement of the St. Lawrence Canal system between lake Ontario and Montreal has been studied by the engineers of this department and much data relating thereto has been obtained.

During recent years, the work of completing definite plans for such an enterprise, became necessary in order to enable us to deal intelligently with proposals, by private corporations, for the development of isolated water-powers which might seriously conflict with any reasonable development of the navigation and power potentialities of the river as a whole. Under this impetus, plans were evolved for a comprehensive development of the upper section of the river.

During the past season, two boring parties have continued the investigation of sub-surface conditions on the sites proposed for structures, and one survey party has been employed obtaining information to supplement that already compiled from records here in the department.

A small office staff has been employed throughout the year in the preparation of plans for this work and Col. W. P. Wooten, United States Army Engineer representing the United States Government and I, representing the Canadian Government, have been preparing plans for this undertaking for a joint engineering report to the International Joint Commission to whom the question of the St. Lawrence canals enlargement has been referred.

CANALS OF CANADA

Name	Location.	Length in Miles.	Locks. No. of	Locks. Minimum dimensions. Length.	Width.	Depth.
				Ft.	Ft.	Ft.
St. Lawrence and Great Lakes.						
Lachine	Montreal to Lachine	8·50	5	270	45	14
Soulanges	Cascades Point to Coteau Landing	14·00	5	280	45	15
Cornwall	Cornwall to Dickinson's Landing	11·00	6	270	45	14
Farran's Point	Farran's Point Rapid	1·25	1	800	50	14
Rapide Plat	Rapide Plat, Morrisburg	3·67	2	270	45	14
Galops	Iroquois to Cardinal	7·33	3			14
Murray	Isthmus of Murray, Bay of Quinte	5·17	None			12
Welland	Port Dalhousie, Lake Ontario to Port Colborne, Lake Erie	26·75	26	270	44	14
Sault Ste. Marie	St. Mary's Rapids, 47 miles west of Lake Huron	1·41	1	900	60	19·5
Ottawa and Rideau rivers.						
Ste. Anne Lock	Junction of St. Lawrence and Ottawa rivers	0·12	1	200	45	9
Carillon	Carillon Rapids, Ottawa river	0·75	2	200	45	9
Grenville	Long Sault Rapids, Ottawa river	5·75	5	200	45	9
Rideau	Ottawa to Kingston	126·25	47	134	33	5
	Rideau Lake to Perth (Tay Branch)	7·00	2	134	33	5
Richelieu river.						
St. Ours Lock	St. Ours, Que.	0·12	1	200	45	7
Chambly	Chambly to St. Johns, Que.	12·00	9	118	22·5	7
Miscellaneous.						
Trent	Trenton to Peterboro Lock, Peterboro	89·0	18	175	33	8·3
	Peterboro Lock to head of Lake Couchiching	114·6	23	134	33	6
	Sturgeon Lake to Port Perry (Scugog Branch)	30·0	1	142	33	6
St. Peter's	St. Peter's Bay to Bras d'Or Lakes, Cape Breton, N.S.	0·49	1	300	48	18

TABLE SHOWING THE DATES OF THE OPENING AND CLOSING OF THE CANALS FOR THE SEASONS 1917, 1918, 1919 AND 1920.

Canals		1917		1918		1919		1920	
		Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
Lachine		April 25	Dec. 15	April 30	Dec. 17	April 16	Dec. 12	May 1	Dec. 11
Soulanges		" 25	" 15	May 1	" 17	" 18	" 12	" 1	" 11
Grenville		" 26	Nov. 26	" 1	Nov. 30	May 1	Nov. 25	" 1	Nov. 30
Carillon		" 26	" 26	" 1	" 30	" 1	" 25	" 1	" 30
Ste. Anne's		" 25	" 30	April 25	" 30	April 17	" 30	April 19	" 27
Chambly		May 1	" 27	May 1	" 30	May 1	" 30	May 1	Dec. 1
St. Ours		" 1	" 27	April 29	" 20	April 23	" 30	April 22	Nov. 25
Cornwall		April 14	Dec. 12	" 24	Dec. 17	" 17	Dec. 13	" 30	Dec. 12
Williamsburg	Farran's Point	" 17	" 10	" 26	" 16	" 17	" 17	" 29	" 13
	Rapide Plat	" 17	" 10	" 24	" 16	" 17	" 13	" 29	" 13
	Galops	" 17	" 10	" 24	" 16	" 17	" 13	" 29	" 13
Murray		" 18	" 1	" 21	" 7	" 14	" 4	" 12	" 4
Welland		" 18	" 8	" 23	" 20	" 19	" 13	" 19	" 15
Sault Ste. Marie		" 25	" 16	" 23	" 17	" 19	" 13	" 23	" 22
Rideau	Ottawa	May 1	Nov. 30	May 1	Nov. 30	" 11	" 15	May 1	Nov. 30
	Kingston	" 1	" 19	" 1	" 30	May 1	Nov. 28	" 1	" 29
	Hastings to Rice Lake	" 5	Dec. 4	May 6	" 15	" 15	" 14	" 12	" 8
	Rice Lake to Peterborough	" 5	" 4	April 20	Dec. 4	" 3	" 24	" 3	Oct. 30
	Peterborough to Lakefield	" 23	Nov. 19	May 17	Nov. 27	" 10	" 25	" 8	Nov. 20
	Peterborough to Bobcaygeon	" 24	" 3	" 17	" 6	" 15	" 7	" 1	" 20
	Lakefield to Bobcaygeon	" 2	" 9	" 9	" 21	April 29	" 15	" 17	" 16
Trent	Bobcaygeon to Port Perry	" 8	" 14	" 6	" 28	" 21	" 18	" 18	" 6
	Kirkfield Lift Lock	June 1	Oct. 4	" 24	Oct. 25	May 21	Oct. 23	" 1	" 20
	Kirkfield to Lake Simcoe	May 9	Nov. 1	" 7	Nov. 1	" 7	" 23	April 24	" 13
	Lake Simcoe to Orillia	" 26	" 1	" 25	" 5	" 1	Nov. 20	May 8	Oct. 20
	Scugog River and Lindsay Lock	April 18	" 15	April 20	" 22	April 12	Nov. 23	" 14	" 19
St. Peter's		" 14	Jan. 15	May 1	Jan. 1	" 10	Jan. 3	" 14	" 19
		1918		1919		1920		" 8	Nov. 15
								April 15	Jan. 10
								1921	

REPORT OF A. W. CAMPBELL, M.E.I.C., COMMISSIONER OF HIGHWAYS

Major Graham A. Bell, C.M.G.,
Deputy Minister,
Department of Railways and Canals,
Ottawa.

Sir,—In my report for the year ending March 31, 1920, it was pointed out that the regulations required for giving effect to the objects and purposes of the Canada Highways Act were approved by Governor in Council and published in the *Canada Gazette* on the 13th day of December 1919; that the chief conditions laid down by these regulations are that the highways to be aided shall comprise such main and market roads as have been designated by the provinces, with a view to encouraging production and stimulating trade and commerce, and as shall be approved by the minister; and that the expenditures called for, under the Canada Highways Act, should supplement the usual amounts granted and devoted to the construction and improvement of highways by the province itself; that, before any agreement be made with respect to any road to be improved, there should be furnished to the Minister by the province a statement setting forth a programme for construction or improvement of a system of highways in the province within the five-year period and towards which the federal grant shall be applied; this statement to be accompanied by a general map of the proposed programme bearing the approval of the Provincial Government and its Highways Department.

The programme map to include:—

1. Roads having greatest local agricultural and commercial importance.

2. Roads having both local and general importance, and that these programmes should be so adjusted and arranged that the whole, when co-related, would form, as far as possible, a general system of interprovincial highways; that application for aid towards specific portions of these roads might then be made from time to time as the necessary information was secured and arrangements made by the provinces for carrying out the work. These applications to be embodied in project statements and to contain the following information:—

(*a*) The purposes the undertaking will serve, and why it is in the public interest;
(*b*) The character and extent of traffic, present and prospective, on the road;
(*c*) How the undertaking relates to the provincial programme;
(*d*) A statement of the type of construction or improvement it is proposed to make, together with a report of the engineer of the Provincial Highways Department endorsing the adoption of the proposed type and design thereof as being the most economical and practicable in the public interest, his reasons therefor, and a full explanation of any special or unusual features thereof;
(*e*) The administrative control of and responsibility for the undertaking;
(*f*) The source and method of procuring the necessary money for the undertaking and the extent to which interested municipalities contribute thereto;
(*g*) Plans in standard form to be prescribed by the Minister and in detail following accepted engineering practice, together with a sketch map showing the position of the proposed project on the general programme map of the province;

(*h*) Specifications in standard form to be prescribed by the Minister setting forth the proposed type and method of construction, materials to be used, and other essentials, in such detail as to afford complete knowledge of all steps to be taken in carrying out the project;

(*i*) Copies of the form of contract to be used, together with all documents referred to therein or made a part thereof; and

(*j*) Estimated cost of the project, giving a schedule of quantities and the estimated cost of each item in detail.

It was thought advisable not to include in the cost of the work right of way and incidental damages, bridges, viaducts, subways, exceptional grade separation, provincial overhead and administrative expenses, the making of surveys, plans, specifications and estimates, or any engineering expense incident to the project prior to the beginning of actual construction; the cost of culverts up to 20-foot span, however, to be allowed.

After the regulations had been promulgated the different provinces undertook the preparation of the necessary programme map of the general system of roads called for by the regulations, and early in the season of 1920 each of the provinces had filed its general programme map. A notice with respect to each of the provincial general programme maps, was placed in the *Canada Gazette,* to the effect that they might be seen by any interested parties, during a period of thirty days, in the Office of the Commissioner. These programme maps have all been found satisfactory.

The chief object of the programme plan is to assure in advance that the Federal appropriation will be devoted to a definite system of roads which the province wishes to carry out.

While the general map prepared by each of the provinces contains the mileage which the province expects to complete during the five years mentioned in the Act. the amount of aid given by the department is confined to specific projects or roads covered by agreements involving amounts up to, but not exceeding, the amount of the Federal appropriation to which each province is entitled; the form of the minister's approval to such general map being in the following words:—

> "Approved as to a general system of interprovincial highways from which projects shall be selected for construction or improvement under the Canada Highways Act to such an extent as funds may be available."

A summary of the general programme statements of each of the Provinces, showing the mileage and estimated cost of work to be completed under the Act, and towards which their portion of the appropriation thereof will be applied, follows:—

Province	Mileage	Total Estimated Cost	Amount of Federal Appropriation to which each Province is entitled
Prince Edward Island	850	$ 850,000	$ 603,455
Nova Scotia	1,297	12,493,700	1,468,720
New Brunswick	1,595	2,914,612	1,163,845
Quebec	1,133	17,390,000	4,748,420
Ontario	1,824.7	22,200,000	5,877,275
Manitoba	4,000	6,602,265	1,602,265
Saskatchewan	2,500	5,329,500	1,806,255
Alberta	2,475	3,694,525	1,477,810
British Columbia	1,977	10,015,050	1,251,955

It will be observed that in some cases the mileage and the estimated cost is greater than that towards which the Federal grant will finance to the extent of forty per cent (40%), but in every instance the province has, by special legislation, made provision for the payment of the additional amount required to carry out the full system planned.

All applications for construction or improvement of roads under the Act, relate to specific portions of road forming this general programme plan, and each application for aid is embodied in a project statement on forms which are supplied by the department, showing the information which is to be supplied by the province to aid the department in passing upon the application and determining the type of road and the amount of money which, in the opinion of the department, would be a reasonable and necessary outlay to meet the requirement of the traffic present and for a reasonable future. All of the project statements filed with the department have been in pursuance of these general programme plans and the work has been carried out in accordance therewith.

Before a project is approved and an agreement entered into the commissioner certifies that the information submitted in the project statement, plans, specifications and exhibits called for by the regulations concerning location, cost, description, time and method of construction has all been approved by the chief engineer, and that in the opinion of the commissioner the proposed work comes within the meaning and scope of the Canada Highways Act.

When a project statement relating to a specific section of road has been approved by the minister an agreement, as provided by the Act, is executed between the province and the minister. This agreement, among other things, provides that the Dominion, in consideration of the premises and subject to the performance and observance on the part of the province, to the satisfaction of the minister, of the covenants, provisions and conditions in the agreement contained, will, in accordance with the Act and the regulations, pay to the province, towards the cost of improvement of the said highway sections, aid to the extent of forty (40%) per centum of the amount which, in the opinion of the minister upon the report and recommendation of the commissioner and chief engineer of highways, is the actual, necessary and reasonable cost of the said improvement.

The right is reserved to withhold such sums as may be deemed necessary to ensure completion of the work in compliance with the plans and specifications thereof.

The department assumes that adequate provision for the maintenance of roads should accompany any plan of construction. To construct highways at large capital expenditure and then allow the work to deteriorate for lack of repair is a useless waste of the initial outlay; improved roads of all classes demand careful and constant attention to their maintenance. After roads have been improved a regular patrol system of maintenance should be inaugurated; suitable material for their repair should be deposited at intervals along the work to be readily available whenever required. The patrolmen should be supplied with suitable road repairing equipment, including motor trucks for carrying repair-material and tools, and they should be charged never to let the roads get out of repair. However great the expenditure on road construction, its finished condition will be short lived unless the organization for repair is proportionate to the traffic.

To ensure the proper maintenance of roads towards which Federal aid is granted each agreement contains the following clause:

> "The province covenants, undertakes and agrees that, after the highway sections herein described have been improved and have been accepted as completed the said province will maintain the said highway sections, or cause the same to be maintained, with all necessary repairs and renewals so as to preserve the standard of construction for the type or class built."

It is further provided by the agreement that where the agreement entered into relates only to a portion of a through road, the province undertakes and agrees to improve the through road, of which the section or sections referred to in the agreement forms a part, up to a uniform standard conforming with the type of road specified for the section under agreement and to maintain the whole road in an

efficient manner, satisfactory to the minister. Such improvement to be carried out within the time limited by the Act, viz: March 31, 1924.

The regulations provide that the supervision of each project by the Provincial Highway Department shall include adequate inspection of work and material by competent engineers throughout the course of construction. To this end, any recommendation of the minister to the Provincial Government with respect to the necessary technical qualifications and experience of the members of the highway organization will be enforced by such government.

Competent responsible engineering supervision is now provided by each province to such an extent as to minimize the necessity for duplicating minute inspection by this department. The interest of Provincial Governments in the growing importance and necessity for improved roads has been gradually awakened and it can no longer be charged that road improvement is treated with neglect by provincial authorities. The principle of centralized supervision and control of roads has been adopted by all provinces and each Provincial Government has now a department or branch having definite responsibility with respect to at least leading roads.

In Prince Edward Island all rural roads are under the management of the Department of Public Works; similarly in Nova Scotia, all roads are constructed and maintained by the province. In New Brunswick, under a provincial highway engineer in the Department of Public Works, provincial expenditure is applied to roads. The province of Quebec has a Department of Roads, a system of provincial roads, and is extending substantial aid to leading municipal roads. Ontario has a Department of Public Highways and has created a system of provincial highways, and for some years has given financial assistance to system of county roads. Manitoba has a Highway Commission in the Department of Public Works. The provinces of Saskatchewan and Alberta have each Highway Departments, and in British Columbia highway construction is the chief duty of the Department of Public Works.

All provincial road work, including that receiving federal aid, is now done under the direction and supervision of experienced departmental engineers and in accordance with standard plans and specifications.

All agreements provide that the Dominion shall have the right at all times, through such officers of this department or such other persons as may be designated or appointed for the purpose, to inspect any work done on the highway sections and any materials supplied therefor.

For the purpose of more careful and economical inspection an inspecting engineer has been appointed for each of the following districts: Nova Scotia and Prince Edward Island with headquarters at Moncton, New Brunswick; Quebec with headquarters at Quebec; Ontario with headquarters at Ottawa; Manitoba, Saskatchewan and Alberta with headquarters at Edmonton; and British Columbia with headquarters at New Westminster; a chief engineer having supervision over all with headquarters at Ottawa. Such districts may be altered and additional inspectors appointed should it be found when all the provinces are taking full advantage of the Act that such additional services are required in order to give the work necessary inspection.

Certified vouchers showing the amounts expended on each section of completed road, also showing the amount, if any, expended on any uncompleted section up to subgrade at the termination of each year are submitted by the province to the department, and when the commissioner certifies that the terms and conditions of the agreement, in respect of the plans and specifications annexed thereto, have been carried out as far as relates to such section, payments are made. An examination of the books, vouchers, etc., relating to the works under agreement in each province is made regularly by auditors of this department, and the certificate of the commissioner is based upon the certificates of the auditors, inspecting and chief engineer.

All expenditure, under the Act, has been made by tender and contract except where it has been shown that such work could be done more expeditiously and economically by day labour. The work of heavy grading, excavations and embankments and the construction of bridges, culverts and of gravelling, macadamizing and other surfacing has been done by contract. It has, however, been found that the work of lighter grading, widening, reshaping and crowning of existing roadbeds and some gravelling could be more economically and satisfactorily done by day labour.

The provinces are all well equipped with the necessary outfit of modern heavy graders, tractors and road-building equipment as well as the necessary organization for carrying out such work, and by using their own equipment and forces much expenditure of making unnecessary surveys, plans and specifications preliminary to awarding contracts has been saved.

All work done by day labour is done with the consent of this department, under the same direct supervision of the provincial district engineer as if it had been done by contract.

As a result of consultation, the Highway Departments of the different provinces have instituted a uniform system of cost accounting in order that reliable data as to actual detailed cost of work performed may be ascertained by our auditors and engineers. This data will serve as a guide in the preparation of future estimates and in governing expenditure during the progress of the works. In addition, such records will enable a proper comparison being made between the cost of doing the work by day labour and contract.

Highway engineering requires that the designs not only insure that the construction will fill the purpose for which they are intended but that the designs finally adopted will be the most economical to meet the requirements, and the estimating capacity of the engineer is the deciding factor between the different designs. Of special value, therefore, is the record of cost data in aiding the engineer in preparing reliable estimates of cost. Much benefit is expected to result from the adoption by the provinces of this uniform method of cost accounting, and much benefit will result to this department by having the method uniform throughout the Dominion.

All of the plans submitted embody uniformly the fundamental principles of road construction, carefully studied location, uniform standard as to width of grade and crowning, the provision of adequate drainage to provide dry and unyielding foundations, the construction in the most durable manner of culverts and bridges, and, generally speaking, providing a firm and finished foundation for future surfacing is the fundamental principle aimed at in all the designs.

The varying conditions of traffic in the provinces will influence the type of surfacing to be followed later. Suitable roads for present service and the development of these on general principles appear to be the method generally adopted. Not only the extent but the character of the traffic enter very largely into the adoption of the class of surfacing to be used. Particularly in industrial districts and in the neighbourhood of large cities and towns, and roads connecting central and railway points the use of motor trucks is rapidly increasing, and these demand such proportionate heavy construction as to necessitate special consideration. The rapidly-growing use of the motor vehicle as a means of travel and transport and the growing recognition of the benefits to result have made the demands for better roads throughout Canada general and persistent.

The value of the motor car to agriculture and commerce is undoubtedly very great. Horse-drawn traffic is limited and local in its range, but the motor vehicle—very capable of a speed and long-distance service—has added materially to the demand for better roads and the demand is for a higher standard and more costly construction. The rapid increase in the use of the motor vehicle by every class of the community and for every kind of transport justifies the reasonable and necessary outlay required

to produce a road suitable to provide in a practical way for the profitable operation of all road vehicles using it, and for the maintenance of such road and vehicles in a desirable and economical manner.

In the days of the horse-drawn vehicle, traffic was restricted largely to the township, seldom beyond the county, but with the vehicle of to-day and the vehicle of the future it is quite apparent that even provincial boundaries will be in some measure forgotten. To meet this growing demand, road building should hereafter be treated as a work to be broadly viewed, seriously considered, carefully designed and carried out by capable and economical methods, and then maintained by practical methods of care and attention, and this is the instruction which is being pressed upon those who have charge of the work towards which federal aid is granted.

A statement is attached hereto showing the number and location of projects for which agreements have been entered into between the Dominion Government and the various provinces, giving the mileage, total estimated cost, average cost per mile and the amount of federal appropriation of each project, for the fiscal year ending March 31, 1921.

SUMMARY OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE VARIOUS PROVINCES (to Mar. 31, 1921).

Name of Province	No. of Projects	Mileage	Total Estimated Cost	Average Cost per mile	40 p.c. of Estimated Cost
			$ cts.	$ cts.	$ cts.
Prince Edward Island	8	63·0	113,070 00	17,936 51	45,228 00
Nova Scotia	4	44·3	405,198 95	9,146 70	162,079 58
New Brunswick					
Quebec	10	154·6918	1,835,402 53	11,864 90	734,161 01
Ontario	16	526·02	9,502,580 05	18,065 05	3,801,032 02
Manitoba					
Saskatchewan	3	104·25	171,569 91	1,645 75	68,627 96
Alberta					
British Columbia	9	138,146	1,059,347 65	7,668 33	423,739 06
	50	1,030·4078	13,087,169 09	12,700 96	5,234,867 64

NOTE.—Up to the close of the fiscal year ending March 31, 1921, no project statements had been approved for New Brunswick, Manitoba, and Alberta, but during the months of April and May following project statements practically covering the whole of the appropriation allotted to New Brunswick and Manitoba were approved and agreements entered into.

LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF PRINCE EDWARD ISLAND
(March 31, 1921)

Project No.	Location of Project	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
1	Georgetown Road (10-Mile House to County line).	8·0	11,835 00	Earth road built to form suitable base for future gravel or macadam surface.
2	Tryon Road (New Haven to Queen's Arms)	8·0	12,680 00	Improved earth road.
3	Irish-Town Road (Kensington to Bryenton's Corner).	3·5	9,300 00	" "
4	Western Road (O'Leary Road to Mount Pleasant).	12·0	24,040 00	" "
5	Souris Road)McMahon's Bridge to Elmira Road).	8·5	16,055 00	" "
6	Dundas Road (Dundas to Rollo Bay)	8·5	16,460 00	" "
7	Johnson's River Road (Bovyer's Brook to Webster Corners).	9·0	12,750 00	" "
8	Montague Road (Montague to Cardigan Road)	5·5	9,950 00	" "
	Total	63·0	113,070 00	

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LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF NOVA SCOTIA

(March 31, 1921)

Project No.	Location of Project	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
2	Halifax to Indian River	17·5	211,944 60	Gravel surfaced.
3	Mount Uniake to Lakelands	7·6	56,121 75	Waterbound macadam
5	Aylesford to Middleton	12·1	91,529 10	Waterbound macadam
6	Elmsdale to Shubenacadie	7·1	45,603 50	Gravel macadam
	Total	44·3	405,198 95	

LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF QUEBEC

(March 31, 1921)

Project No.	Location of Project.	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
1	Montreal-Longueuil-Sherbrooke Highway—			
	Subsection A2 (Orford Twp., Sherbrooke Co.)	3·09	50,966 00	Gravel.
	" C1 (Magog Twp., Stanstead Co.)	2·59	48,758 00	"
	" D1 (Magog Twp., Stanstead Co.).	0·82	24,799 00	Cement concrete.
	" E1 (East Bolton Twp., Brome Co..	2·07	54,123 00	Gravel.
	' E2 (East Bolton Twp., Brome Co.)	2·48	36,729 00	"
	" H1 (Shefford Twp., Shefford Co.)	2·31	52,716 00	"
	" M1 (St. Cesaire Parish, Rouville Co.).	3·305	47,500 00	"
	" Q1 (Ste-Marie de Monnoir Parish, of Rouville).	1·2528	18,661 00	Waterbound macadam treated with Tarvia "B".
2	Montreal to Quebec Highway—			
	15 Sections (Counties of Quebec, Champlain, Berthier, Joliette and L'Assomption).	48·13	140,935 48	37·25 miles carpet coa 1·65 miles asphaltic concrete. 9·23 miles stone shoulder.
3	Levis-St. Lambert Highway—			
	Subsection B1 (Parish of St. David, County B2 of Levis.	1·951	37,683 00	Concrete.
	" C1-C2 (Municipality St. Telesphore).	0·893	16,339 13	Concrete.
	" D3 (St. Romuald Parish, Levis Co.).	0·713	20·773 65	Concrete and macadam.
	" E1 (Parish St. Nicholas, Levis Co.).	6·818	162,734 50	Waterbound macadam.
	" L1-L3 (Deschaillons Village, Lotbiniere County).	4·120	97,559 39	Concrete.
	" NN2 (Contracœur Par., Vercheres Co.).	2·0	32,434 80	Waterbound macadam, Tarvia "B"
	" TT1-TT2 (Parish of Boucherville, TT3 (Co. of Chambly).	2·684	76,646 95	(Concrete on Section 1; balance bituminous macadam.
	" WW (Longueuil Parish, Chambly Co.).	2·914	69,869 55	1·929 miles concrete, 0·985 miles bituminous macadam.
4	Caughnawaga-Malone Highway—			
	Section A (from Ferry Landing S. shore Lake St. Louis to Southern limit of Caughnawaga Indian Reserve).	3·5	74,100 00	Bituminous macadam.
	Subsection D1 (N. limit Parish Ste-Martine South).	1·950	72,390 50	" "
	" D3 (from Bean River Road southerly).	2·317		" "

PROVINCE OF QUEBEC—*Continued.*

Project No.	Location of Projects	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
5	Beauce Jct.-Sherbrooke Highway—			
	Subsection A2 (Parish L'enfant Jesus, Beauce Co.).	1·20	37,711 79	Gravel.
	" B1-B2 (Parish St. Frederic, Beauce	4·267	192,594 86	"
	" C3 (Parish Sacre-Cœur de Jesus, Beauce County).	1·121		"
	" E1-E3 (Parish Sacre-Cœur de Marie, Megantic County).	1·051		"
	" L1-L3 (Parish Disraeli, County Wolfe).	0·722		
	" M2 (Disraeli Village, County of Wolfe).	0·688		"
	" N2-N5-N7 (Parish Garthby, Co. Wolfe).	2·589		"
	" P1-P2-P4-P6-P8 (Twp. Weedon, County Wolfe).	2·348		"
	" Q2-Q4-Q6 (Lac Weedon Village, County Wolfe).	2·386		"
	" R1-R3 (Weedon Centre Village, County Wolfe).	0·945		"
	" T2-T3-T4 (Twp. Dudswell,County Wolfe).	6·704		"
	" S1-S3 (Marbleton Village, County Wolfe).	3·730	46,286 00	"
6	Levis-Riviere-du-Loup-Rimouski Highway—			
	Section B (Bienville Village, Co. Levis).....	0·257	17,000 00	Concrete.
9	Montreal-Rouses Point Highway—			
	Subsection C2 (Laprairie Dyke, Co. Laprairie	1·520	54,000 00	Waterbound macadam and Tarvia "B".
	" C3 (Laprairie Parish, Co. Laprairie).	1·140	20,529 89	" " "
	" D2 (Laprairie Parish, Co. Laprairie).	0·270	4,810 57	" " "
10	Levis-Sherbrooke Highway—			
	Subsection N1 (E. Bdy. Princeville, easterly)	3·878	21,382 20	Gravel.
	" N2 (S. limit Princeville, southeasterly).	3·797	38,311 20	Gravel.
11	Montreal-Mount Laurier Highway—			
	Sub-sections E2-E4-E6 (Parish of St. Janviere, County of Terrebonne).	2·144	20,024 10	Gravel.
	Section F (Parish Ste. Monique).....	0·132	5,125 37	0·06 mile concrete; balance gravel.
	Subsections G1-G3-G5-G7 (Parish of St. Jerome, County of Terrebonne).	7·249	92,972 22	Gravel.
	Subsection G4 (Parish of St. Jerome).....	0·378	15,516 75	Concrete.
	" I1 (Shawville Village, Co. Terrebonne).	0·833	5,114 63	Gravel.
14	Laprairie-Lacolle Highway—			
	Subsection B1 (Parish St. Luc, County St John).	5·220	59,000 00	Waterbound macadam.
	" C3 (Southerly from Town of St. Johns).	4·215	69,304 00	Waterbound macadam.
	Total.....	154·6918	1,835,402 53	

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LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF ONTARIO

(March 31, 1921)

Project No	Location of Project	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
2	Whitby to Belleville	75·91	805,000 00	Waterbound macadam in Whitby; balance gravel.
3	Belleville to Kingston	46·35	616,650 00	Macadam.
4	Kingston to Brockville	45·23	698,100 00	"
5	Brockville to Prescott	10·4	221,100 00	Waterbound macadam, bituminous surface.
6	Ottawa to Prescott	58·7	1,790,879 00	Concrete or bituminous
7	Hamilton to Stoney Creek	5·0	128,550 00	Macadam, bit. surfacing
8	Stoney Creek to Queenston	32·2	485,200 00	" " "
9	Hamilton to Brantford	19·18	658,907 05	" " "
10	Brantford to Woodstock	24·35	402,600 00	Gravel and bit. surfacing
11	Woodstock to Ingersoll	7·16	231,000 00	" " "
12	Ingersoll to London	15·8	521,000 00	" " "
17	Jarvis to Hamilton	24·15	276,725 00	Tp. of Walpole waterbound macadam; balance of road bituminous macadam.
23	London to Stratford	34·62	474,754 00	Gravel, bit. surfacing.
25	Toronto to Hamilton	30·57	749,865 00	Bituminous macadam.
27	Toronto to Bradford	27·21	309,240 00	" "
33	Ottawa to Point Fortune	69·19	1,133,010 00	Gravel on Sec. 9-10; balance bituminous macadam.
	Total	526·02	9,502,580 05	

LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF SASKATCHEWAN

(March 31, 1921)

Project No.	Location of Project	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
1	Cadillac-Battleford Highway—			
	Section G (Battleford to North Battleford)..	2·5	11,102 00	Gravel.
2	Assiniboia-Prince Albert Highway—			
	Section B (Crestwynd to Moosejaw)	25·0	28,294 00	Earth and sand clay.
	" D (NE. 36-19-27-2 to NE. 32-20-26-2)	9·0	16,996 15	Earth.
	" G (NE. 33-34-27-2 to Dana)	25·0	25,430 00	Earth and sand clay.
3	Big River-Prairie River Highway—			
	Section A (Prairie River to SE. 6-43-7-2)	16·25	36,912 76	Earth road.
	" F (Prince Albert to Shellbrook)	26·50	52,835 00	Earth and sand clay.
	Total	104·25	171,569 91	

LIST OF PROJECTS UNDER AGREEMENT BETWEEN THE DOMINION GOVERNMENT AND THE PROVINCE OF BRITISH COLUMBIA

(March 31, 1921)

Project	Location of Project	Mileage	Total Estimated Cost	Type of Construction
			$ cts.	
1	Alberni-Victoria Highway Section A (Craigflower Bridge to Parsons Bridge).	2·046	74,200 00	Concrete.
4	Vancouver-Ladner Highway— Section A (South from crossing of north arm of Fraser River).	2·650	49,000 00	Half Lithia pavement; half asphaltic pavem't
	" B (From Woodward's Landing north and west).	1·890	66,000 00	Concrete.
6	Caulfield-Roche Point Highway— Section A (from West b'dy North Vancouver City, westward 1 mile).	1·000	20,000 00	Bitulithic.
9	Vancouver-Hope Highway— Section A (from New Westminster Br. south)	3·270	126,000 00	Concrete.
	" B (from Sec. A to Johnston Road)...	2·300	100,000 00	Concrete.
18	Fort George-Hazelton Highway— Section F (Endako to Burns Lake).....	32·000	93,200 00	Earth; later gravel.
	" G (Burns Lake to Rose Lake).....	16·000	33,474 00	" "
	" I (North Bulkley to Houston).....	7·000	19,698 00	" "
19	Burns Lake-Francois Lake (entire project).....	15·000	44,400 00	Gravel.
22	Vernon-Revelstoke Highway— Section A (from 5·5 miles west of Revelstoke westerly).	3·300	7,500 00	Material available on site.
	" B (from section A westerly).....	7·840	33,848 50	" "
	" C (from South end Mara Lake northerly).	3·220	86,886 00	" "
23	Osoyoos-Crow's Nest Pass Highway— Section A (Creston to Yahk near Goat river)	1·280	5,000 00	Diversion (clearing and grading).
	" B (Thrums to Brilliant).....	4·500	33,492 00	New Road (gravel surface).
	" C (Osoyoos to Rock Creek).....	13·070	104,205 50	Gravel.
	" D (Rossland westerly).....	6·750	76,347 50	New construction.
	" E (Kuskanook to Creston).....	5·660	21,096 15	New construction and grading old road.
24	Nelson-New Denver Highway— Section A (Kaslo-Ainsworth).....	4·200	20,000 00	Gravel or local material.
	" B (New Denver to Three Forks)....	5·170	45,000 00	" "
		138·146	1,059,347 65	

REPORT OF THE DEPARTMENTAL ACCOUNTANT

General Summary of the Expenditure and the Revenue for the Fiscal Year ending March 31, 1921, and previous years

	$ cts.	$ cts.
I.—EXPENDITURE.		
Total expenditure for the year		74,809,181 68
This expenditure is divided as follows:—		
Railways, including Quebec Bridge	50,103,403 71	
Canals	8,573,020 93	
General expenditure	16,132,757 04	74,809,181 68
Grand Total Expenditure to March 31, 1921		1,210,358,992 83
This expenditure is divided as follows:—		
Railways, including Quebec Bridge	999,420,074 47	
Canals	187,000,973 60	
General expenditure	23,937,944 76	1,210,358,992 83
II.—REVENUE RECEIVED.		
Revenue received for fiscal year		37,180,360 39
Railways	36,814,349 70	
Canals	366,010 69	
		37,180,360 39
Grand total revenue to March 31, 1921		410,142,390 24
Railways	391,866,392 09	
Canals	18,275,998 15	
		410,142,390 24

The principal expenditures during fiscal year follow:—	
Canadian Government Railways working expenses	43,770,971 10
" " " capital	5,588,469 73
Purchase of railways	731,018 35
Quebec Bridge	24,555 50
Miscellaneous railway equipment	15,543,373 46
Railway Commission, maintenance	192,600 42
" " statute	55,833 28
" " fuel control	10,854 39
Surveys and inspections, railways	80,941 87
Railway Grade Crossing Fund	56,772 62
Governor General's cars	12,301 24
Acquisition of the Grand Trunk Railway	799,941 02
Commissioner of Highways	18,625 58
Canada Highways Act	535,000 97
Workmen's Compensation Act	11,381 22
Welland ship canal	5,070,297 57
Trent canal	379,664 11
Surveys and inspections, canals	80,693 94
Civil Service Amendment Act	8,209 67
Canals expenditure	3,034,155 64
General Expenditure	26,473 14
Total	76,032,134 82
Less sale of Steamers *Sheba*, *Drummond* and *McKee*	1,222,953 14
	74,809,181 68

EXPENDITURE

General Statement of Expenditure during the year ending March 31, 1921

	$ cts.	$ cts.
Total expenditure		74,809,181 68
Expenditure chargeable to railways	50,078,848 21	
" " canals	8,573,020 93	
" " Quebec Bridge	24,555 50	
General expenditure	16,132,757 04	
Total expenditure		74,809,181 68
Classification of expenditure in general—		
Capital account	26,089,870 08	
Income account	3,016,424 37	
Revenue account	45,702,887 23	74,809,181 68
Classification of expenditure by accounts—		
Railways—		
Capital expenditure—Railways		5,096,534 94
Revenue expenditure—Railways	43,770,971 10	
Revenue expenditure—Railways, general	2,000 00	43,772,971 10
Income expenditure—Railways, general		1,209,342 17
Total expenditure on railways, $50,078,848 21.		
Quebec Bridge—		
Income expenditure		24,555 50
Canals—		
Capital expenditure—Canals		5,449,961 68
Income expenditure—Canals	1,104,239 51	
Income expenditure—Canals, general	88,903 61	1,193,143 12
Revenue expenditure—Canals staff	815,979 22	
Revenue expenditure—Canals staff, general	144,828 44	960,807 66
Revenue expenditure—Canals, repairs	920,992 94	
Revenue expenditure—Canals, repairs, general	48,115 53	969,108 47
Total expenditure on canals, $8,573,020.93.		
General expenditure—Capital account	15,543,373 46	
" " Income account	589,383 58	16,132,757 04
Total expenditure		74,809,181 68

REVENUE

GENERAL STATEMENT of the Revenue received during the year Ending March 31, 1921.

	$ cts.	$ cts.
TOTAL REVENUE RECEIVED DURING FISCAL YEAR		37,180,360 39
Revenue from railways	36,814,349 70	
" canals	366,010 69	
Total revenue as above		37,180,360 39
STATEMENT OF REVENUE RECEIVED, IN DETAIL—		
Railways—		
Intercolonial Railway, including New Brunswick and Prince Edward Island Railway	23,656,630 73	
Prince Edward Island Railway	750,973 63	
National Transcontinental Railway	11,853,128 70	
Moncton and Buctouche Railway	47,251 95	
Elgin and Havelock Railway	14,776 51	
St. Martins Railway	22,070 77	
York and Carleton Railway	5,687 38	
Salisbury and Albert Railway	59,187 46	
Lotbinière and Megantic Railway	22,001 27	
Caraquet and Gulf Shore Railway	72,725 29	
Cape Breton Railway	9,655 66	
Quebec and Saguenay Railway	30,890 99	
Hudson Bay Railway	97,652 15	
Total	36,642,632 49	
St. John and Quebec Railway	171,717 21	
Total revenue from railways		36,814,349 70
Canals—		
Welland canal	116,906 64	
Welland canal, Port Colborne elevator	25,078 83	
Welland Ship canal	5,858 75	
Lachine canal	161,494 91	
Beauharnois canal	13,393 15	
Cornwall canal	23,767 64	
Williasmburg canal	2,802 10	
Soulanges canal	3,522 49	
Chambly canal	692 00	
Carillon and Grenville canal	543 00	
Rideau canal	7,175 85	
Trent canal	4,162 33	
St. Peter's canal	5 00	
Sault Ste. Marie canal	116 00	
Murray canal	258 00	
Ste. Anne Lock and canal	232 00	
Chats Falls canal	200	
Total revenue from canals		366,010 69
Total revenue received during fiscal year		37,180,360 39

EXPENDITURE on Railways for year ending March 31, 1921.

Name of Railways.	Capital.	Income.	Revenue Working Expenses.	Total.
	$ cts.	$ cts.	$ cts.	$ cts.
Intercolonial Railway	2,752,984 40		26,708,187 87	29,461,172 27
New Brunswick and Prince Edward Island Railway	88,933 54		*	88,933 54
Prince Edward Island Railway	56,924 27		1,329,349 19	1,386,273 46
International Railway of New Brunswick	37,959 74			37,959 74
National Transcontinental Railway	1,113,921 91		14,579,155 76	15,693,077 67
Moncton and Buctouche Railway	49,584 22		76,312 92	125,897 14
Salisbury and Albert Railway	87,606 39		126,934 16	298,930 96
" " " Purchase	84,390 41			
St. Martins Railway	92,364 42		62,714 39	177,548 33
" " Purchase	22,469 52			
Elgin and Havelock Railway	13,233 93		53,992 81	100,756 74
" " " Purchase	33,530 00			
York and Carleton Railway	838 91		22,646 06	23,484 97
Quebec & Saguenay Railway	333,816 50		44,598 93	378,415 43
Caraquet & Gulf Shore Railway	79,600 00		106,121 41	335,721 41
" " " Purchase	150,000 00			
Lotbinière & Megantic Railway	9,840 00		43,171 86	389,886 86
" " " Purchase	336,875 00			
Canadian Government Railways—Miscellaneous railway equipment	840,825 31			840,825 31
Cape Breton Railway	103,753 42		24,432 31	128,185 73
Hudson Bay Railway	30,036 19		149,237 32	179,273 51
	6,319,488 08		43,326,854 99	49,646,343 07
St. John & Quebec Railway			444,116 11	444,116 11
Quebec Bridge		24,555 50		24,555 50
	6,319,488 08	24,555 50	43,770,971 10	50,115,014 68
Less proceeds of sale of:—				
S.S. "Sheba" (Hudson Bay Ry.)	151,099 90			
S.S. "Drummond" (Can. Govt. Rys.)	550,339 13			
S.S. "McKee" (Can. Govt. Rys.)	521,514 11			1,222,953 14
	5,096,534 94	24,555 50	43,770,971 10	48,892,061 54

*Included with Intercolonial Railway Working Expenses.

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EXPENDITURE on Railways for the year ending March 31, 1921—*Concluded*

Name of Railways.	Capital.	Income	Revenue Working Expenses.	Total .
	$ cts.	$ cts.	$ cts.	$ cts.
Railway Commission, maintenance		192,600 42		192,600 42
Railway Commission, statutory		55,833 28		55,833 28
Railway Commission, Fuel Control		10,854 39		10,854 39
Surveys and inspections		80,941 87		80,941 87
Railway Grade Crossing Fund		56,772 62		56,772 62
Governor General's cars, attendance, etc		12,301 24		12,301 24
Contribution to the International Association of Railways Congress		97 33		97 33
To provide for payment of expenses in connection with acquisition of the Grand Trunk and associated railway systems		799,941 02		799,941 02
Compassionate allowance to widow and children of the late J. L. A. Frobe			2,000 00	2,000 00
		1,209,342 17	2,000 00	1,211,342 17
Grand total railways	5,096,534 94	1,233,897 67	43,772,971 10	50,103,403 71
MISCELLANEOUS.				
War appropriation		8,414 80		8,414 80
Miscellaneous railway equipment	15,543,373 46			15,543,373 46
Commissioner of Highways		18,625 58		18,625 58
Arbitrations and awards and cost of litigation		831 21		831 21
Printing and stationery		6,526 51		6,526 51
Canada Highways Act		535,000 97		535,000 97
Workmen's Compensation Act, Chapter 15, Statutes of Canada, 1918		11,381 22		11,381 22
Retirement Act, 1920, Superannuation No. 4		8,603 29		8,603 29
	15,543,373 46	589,383 58		16,132,757 04

EXPENDITURE on Canals for year ended March 31, 1921.

Name of Canal.	Chargeable to Capital.	Chargeable to Income.	Chargeable to Revenue.		Total.
			Staff.	Repairs.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Carillon and Grenville		34,622 46	28,174 74	18,852 01	81,649 21
Chambly		16,830 51	43,183 94	57,204 04	117,218 49
Cornwall		18,312 92	84,761 42	71,164 83	174,239 17
Lachine		101,304 33	113,486 79	208,232 76	423,023 88
Murray			6,209 21	5,189 37	11,398 58
Rideau			76,322 70	112,428 14	118,750 84
Sault Ste. Marie			33,300 41	28,274 77	61,575 18
Soulanges		29,668 18	41,829 42	103,835 91	175,333 51
Ste. Anne lock		9,751 10	5,699 31	7,064 81	22,515 22
Lake St. Francis		1,984 40			1,984 40
St. Ours lock			5,255 34	11,932 69	17,188 03
St. Peters			5,529 42	536 75	6,066 17
Trent	379,664 11	310,489 02	106,118 89	91,842 85	888,114 87
Welland		575,067 87	225,509 08	179,295 80	979,872 75
Welland ship	5,070,297 57				5,070,297 57
Williamsburg		6,208 72	40,598 55	25,138 21	71,945 48
	5,449,961 68	1,104,239 51	815,979 22	920,992 94	8,291,173 35
General on Canals.					
Dredge vessels, Quebec canals				12,878 39	12,878 39
" Rideau canal				29,280 85	29,280 85
Statistical officers			38,811 86		38,811 86
Sunday labour			74,520 70		75,520 70
Surveys and inspections		80,693 94			80,693 94
Quebec Canals.					
Maintenance			31,416 55		31,416 55
Hungry Bay dyke				5,956 29	5,956 29
Miscellaneous.					
Civil Service Amendment Act, gratuities to dependents of deceased employees		8,209 67			8,209 67
Canals revenue			79 33		79 33
Total		88,903 61	144,828 44	48,115 53	281,847 58
Grand total	5,449,961 68	1,193,143 12	960,807 66	969,108 47	8,573,020 93

RECAPITULATION OF EXPENDITURE.

—	Capital.	Income.	Revenue.	Total.
	$ cts.	$ cts.	$ cts.	$ cts.
Expenditure on railways, including subsidies	5,096,534 94	1,233,897 67	43,772,971 10	50,103,403 71
Expenditure on canals	5,449,961 68	1,193,143 12	1,929,916 13	8,573,020 93
Miscellaneous expenditure, general	15,543,373 46	589,383 58		16,132,757 04
Grand total	26,089,870 08	3,016,424 37	45,702,887 23	74,809,181 68

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IMPERIAL GOVERNMENT ACCOUNT

STATEMENT of Expenditure to March 31, 1921, in connection with the lifting of rails for the use of the Imperial Government; all costs, damages and expenses to be borne by His Majesty's Government in England as per Order in Council, Ottawa, December 19, 1916.

	$ cts.
Expenditure fiscal year 1916-17	393,053 86
" " 1917-18	3,603,279 05
" " 1918-19	178,680 85
" " 1919-20	348,103 36
" " 1920-21	777,814 83
Total	5,300,931 95

EXPENDITURE on Canals to March 31, 1921.

CAPITAL ACCOUNT.

Canals.	Previous Years.	1920-21.	Total.
	$ cts.	$ cts.	$ cts.
Baie Verte			
Beauharnois	1,636,690 26		1,636,690 26
Carillon and Grenville	4,191,756 51		4,191,756 51
Chambly	780,996 52		780,996 52
Cornwall	7,246,304 21		7,246,304 21
Culbute lock and dam	382,391 46		382,391 46
Lachine	14,132,684 80		14,132,684 80
Lake St. Francis	75,906 71		75,906 71
Lake St. Louis	298,176 11		298,176 11
Murray	1,248,946 71		1,248,946 71
Rideau	4,210,274 31		4,210,274 31
Sault Ste. Marie	4,935,809 42		4,935,809 42
Soulanges	7,904,044 53		7,904,044 53
Ste. Anne lock	1,170,215 63		1,170,215 63
St. Lawrence River and Canals—			
North channel	1,995,142 87		1,995,142 87
River reaches	483,830 20		483,830 20
Galops channel	1,039,895 65		1,039,895 65
St. Ours lock	127,228 56		127,228 56
St. Peter's	648,547 14		648,547 14
Tay	489,599 23		489,599 23
Trent	18,274,531 63	379,664 11	18,654,195 74
Welland	29,399,405 93		29,399,405 93
Welland ship	20,270,436 25	5,070,297 57	25,340,733 82
Williamsburg	1,334,551 80		1,334,551 80
Farran's Point	877,090 57		877,090 57
Galops	6,143,468 11		6,143,468 11
Rapide Plat	2,159,880 80		2,159,880 80
Total	131,457,805 92	5,449,961 68	136,907,767 60
Canals, general	34,966 69		34,966 69
Grand total	131,492,772 61	5,449,961 68	136,942,734 29

INCOME ACCOUNT.

Baie Verte	44,387 53		44,387 53
Beauharnois	265,810 84		265,810 84
Carillon and Grenville	367,466 59	34,622 46	402,089 05
Chambly	774,118 98	16,830 51	790,949 49
Cornwall	618,806 17	18,312 92	637,119 09
Culbute lock and dam	60,923 37		60,923 37
Lachine	1,634,907 53	101,304 33	1,736,211 86
Lake St. Francis	25,043 68	1,984 40	27,028 08
Lake St. Louis			
Murray	101,457 76		101,457 76

EXPENDITURE on Canals to March 31, 1921.

INCOME ACCOUNT—*Concluded*

Canals.	Previous Years.	1920-21.	Total.
	$ cts.	$ cts.	$ cts.
Rideau	679,479 05		679,479 05
Sault Ste. Marie	280,098 04		280,098 04
Soulanges	231,046 09	29,668 18	260,714 27
St. Anne lock	85,429 18	9,751 10	95,180 28
St. Lawrence river and canals	128,298 11		128,298 11
St. Ours lock	174,028 88		174,028 88
St. Peters	735,550 22		735,550 22
Tay	748 65		748 65
Trent	1,064,568 89	310,489 02	1,375,057 91
Welland	2,113,677 93	575,067 87	2,688,745 80
Welland ship			
Williamsburg	349,494 12	6,208 72	355,702 84
Total	9,735,341 61	1,104,239 51	10,839,581 12
Canals, general	747,358 98	88,903 61	836,262 59
Grand total	10,482,700 59	1,193,143 12	11,675,843 71

REVENUE ACCOUNT—REPAIRS.

Beauharnois	525,691 23		525,691 23
Carillon and Grenville	629,858 57	18,852 01	648,710 58
Chambly	1,070,842 51	57,204 04	1,128,046 55
Cornwall	1,129,531 23	71,164 83	1,200,696 06
Culbute lock and dam	7,036 15		7,036 15
Lachine	2,520,120 47	208,232 76	2,728,353 23
Murray	111,290 09	5,189 37	116,479 46
Rideau	2,018,959 34	112,428 14	2,131,387 48
Sault Ste. Marie	449,362 42	28,274 77	477,637 19
Soulanges	698,983 78	103,835 91	802,819 69
Ste. Anne lock	155,426 70	7,064 81	162,491 51
St. Curs lock	114,653 73	11,932 69	126,586 42
St. Peter's	36,680 81	536 75	37,217 56
Trent	898,537 24	91,842 85	990,380 09
Welland	4,109,216 83	179,295 80	4,288,512 63
Welland ship			
Williamsburg	680,003 08	25,138 21	705,141 29
Total	15,156,194 18	920,992 94	16,077,187 12
Canals, general	635,491 65	48,115 53	683,607 18
Grand total	15,791,685 83	969,108 47	16,760,794 30

REVENUE ACCOUNT—STAFF.

Beauharnois	649,574 89		649,574 89
Carillon and Grenville	894,524 19	28,174 74	922,698 93
Chambly	1,098,236 55	43,183 94	1,141,420 49
Cornwall	1,902,647 84	84,761 42	1,987,409 26
Culbute lock and dam	11,507 48		11,507 48
Lachine	3,065,940 03	113,486 79	3,179,426 82
Murray	161,337 99	6,209 21	167,547 20
Rideau	1,924,313 34	76,322 70	2,000,636 04
Sault Ste. Marie	509,181 46	33,300 41	542,481 87
Soulanges	654,924 52	41,829 42	696,753 94
Ste. Anne lock	129,087 96	5,699 31	134,787 27
St. Ours lock	132,393 92	5,255 34	137,649 26
St. Peter's	132,336 38	5,529 42	137,865 80
Trent	812,707 14	106,118 89	918,826 03
Welland	5,486,120 82	225,509 08	5,711,629 90
Williamsburg	772,033 97	40,598 55	812,632 52
Total	18,336,868 48	815,979 22	19,152,847 70
Canals, general	2,323,925 16	144,828 44	2,468,753 60
Grand total	20,660,793 64	960,807 66	21,621,601 30

Total Expenditure by Canals to March 31, 1921.

Canals	Capital	Income	Revenue		Totals
			Staff	Repairs	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Baie Verte		44,387 53			44,387 53
Beauharnois	1,636,690 26	265,810 84	649,574 89	525,691 23	3,077,767 22
Carillon and Grenville	4,191,756 51	402,089 05	922,698 93	648,710 58	6,165,255 07
Chambly	780,996 52	790,949 49	1,141,420 49	1,128,046 55	3,841,413 05
Cornwall	7,246,304 21	637,119 09	1,987,409 26	1,200,696 06	11,071,528 62
Culbute lock and dam	382,391 46	60,923 37	11,507 48	7,036 15	461,858 46
Lachine	14,132,684 80	1,736,211 86	3,179,426 82	2,728,353 23	21,776,676 71
Lake St. Francis	75,906 71	27,028 08			102,934 79
Lake St. Louis	298,176 11				298,176 11
Murray	1,248,946 71	101,457 76	167,547 20	116,479 46	1,634,431 13
Rideau	4,210,274 31	679,479 05	2,000,636 04	2,131,387 48	9,021,776 88
Sault Ste. Marie	4,935,809 42	280,098 04	542,481 87	477,637 19	6,236,026 52
Soulanges	7,904,044 53	260,714 27	696,753 94	802,819 69	9,664,332 43
St. Anne lock	1,170,215 63	95,180 28	134,787 27	162,491 51	1,562,674 69
St. Lawrence River canals—					
North Channel	1,995,142 87				
River Reaches	483,830 20	128,298 11			3,647,166 83
Galops Channel	1,039,895 65				
St. Ours lock	127,228 56	174,028 88	137,649 26	126,586 42	565,493 12
St. Peter's	648,547 14	735,550 22	137,865 80	37,217 56	1,559,180 72
Tay	489,599 23	748 65			490,347 88
Trent	18,654,195 74	1,375,057 91	918,826 03	990,380 09	21,938,459 77
Welland	29,399,405 93	2,688,745 80	5,711,629 90	4,288,512 63	42,088,294 26
Welland Ship	25,340,733 82				25,340,733 82
Williamsburg	1,334,551 80				
Farran's Point	877,090 57				
Galops	6,143,468 11	355,702 84	812,632 52	705,141 29	12,388,467 93
Rapide Plat	2,159,880 80				
Total	136,907,767 60	10,839,581 12	19,152,847 70	16,077,187 12	182,977,383 54
Canals, general	34,966 69	836,262 59	2,468,753 60	683,607 18	4,023,590 06
Grand total	136,942,734 29	11,675,843 71	21,621,601 30	16,760,794 30	187,000,973 60

YEARLY EXPENDITURE on Canals and Revenue received to March 31, 1921.

—	Year ending	Capital	Income	Revenue		Revenue received
				Staff	Repairs	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation, including Imperial Government expenditure	.....	20,593,866 13	98,378 46	.....	.....	.....
Government expenditure (1868 to 1879 included)	.....	17,004,842 55	515,196 21	1,830,398 92	1,832,998 61	5,079,068 36
Govt. expenditure since	1880	2,123,366 34	.....	195,039 33	147,167 52	341,598 14
" "	1881	2,075,891 65	7,246 69	197,573 62	154,653 63	361,558 17
" "	1882	1,593,174 09	55,025 03	224,572 61	187,399 02	325,231 54
" "	1883	1,763,001 97	62,503 14	269,415 01	178,617 86	361,604 01
" "	1884	1,577,295 42	60,993 99	280,657 29	192,219 38	372,561 69
" "	1885	1,504,621 47	58,298,29	280,226 20	201,708 47	321,289 47
" "	1886	1,333,324 80	31,984 02	282,323 63	198,251 97	328,977 43
" "	1887	1,783,698 16	65,983 06	285,172 62	198,888 84	321,784 88
" "	1888	1,033,118 34	120,561 59	292,458 76	201,928 93	317,902 04
" "	1889	972,918 43	162,015 49	301,040 23	240,261 36	333,188 90
" "	1890	1,026,364 24	146,853 54	290,516 63	176,089 00	354,816 92
" "	1891	1,318,092 15	165,843 87	294,562 12	204,768 45	349,431 90
" "	1892	1,437,149 30	194,129 61	293,115 58	231,089 54	324,475 24
" "	1893	2,069,573 30	196,185 84	291,048 97	204,759 39	357,089 87
" "	1894	3,027,164 19	110,512 07	294,446 34	179,630 13	387,788 97
" "	1895	2,452,273 65	216,057 58	281,477 04	164,033 71	339,890 49
" "	1896	2,258,778 97	85,820 49	292,121 05	209,321 60	339,538 72
" "	1897	2,348,636 91	101,205 74	287,970 36	178,385 47	384,780 54
" "	1898	3,207,249 79	82,400 55	280,872 44	203,478 86	407,652 82
" "	1899	3,899,877 31	82,205 60	280,628 57	202,312 36	369,044 33
" "	1900	2,639,564 93	120,653 93	292,609 24	227,626 97	322,642 81
" "	1901	2,360,569 89	135,500 57	314,095 04	262,876 07	315,425 68
" "	1902	2,114,689 88	213,044 91	317,838 61	263,768 27	300,413 66
" "	1903	1,823,273 61	275,103 58	390,281 82	294,113 92	230,213 19
" "	1904	1,880,787 20	298,678 23	381,016 82	350,278 54	†79,536 58
" "	1905	2,071,593 72	352,855 43	431,499 60	401,742 79	78,009 25
" "	1906	1,552,121 21	310,716 70	447,962 92	375,889 60	108,067 71
" "	1907	887,838 61	254,423 18	329,629 63	287,231 03	105,003 11
" "	1908	1,708,156 37	483,250 11	473,638 95	411,660 53	144,882 16
" "	1909	1,868,834 45	699,304 73	475,515 04	433,958 10	199,501 25
" "	1910	1,650,706 64	459,835 62	515,585 16	491,793 02	193,384 23
" "	1911	2,349,474 49	385,534 55	511,305 94	471,530 32	221,138 46
" "	1912	2,554,938 91	384,860 73	585,899 54	555,709 95	264,114 48
" "	1913	2,255,448 21	292,960 26	605,248 57	535,135 66	307,567 69
" "	1914	2,824,536 79	351,397 24	642,844 68	574,038 68	380,188 08
" "	1915	5,490,796 03	405,806 32	675,170 67	562,599 27	427,763 16
" "	1916	6,142,148 96	348,174 41	697,532 44	529,565 23	446,722 26
" "	1917	4,304,589 09	372,102 96	700,022 11	486,167 67	461,423 14
" "	1918	1,781,957 07	90,255 66	743,857 09	540,331 49	414,868 21
" "	1919	2,211,935 48	137,604 37	733,090 71	698,878 14	387,654 90
" "	1920	4,579,565 22	743,877 26	745,986 58	713,334 83	442,193 02
" "	1921	5,449,961 68	1,104,239 51	815,979 22	920,992 94	366,010 69
Total*	.....	136,907,767 60	10,839,581 12	19,152,847 70	16,077,187 12	18,275,998 15

*This does not include expenditure which has been charged to Miscellaneous Canals Expenditure but only the amount expended on specific canals.

†Canal tolls abolished this year.

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STATEMENT of Canals, Revenue for year ending March 31, 1921.

Divisions	Dues	Rents	Total
	$ cts.	$ cts.	$ cts.
Welland Canal—			
Port Colborne	204 89	12,581 60	12,786 49
" Elevator	25,078 83		25,078 83
Port Dalhousie	387 90	103,732 25	104,120 15
Total	25,671 62	116,313 85	141,985 47
Welland Ship Canal		5,858 75	5,858 75
St. Lawrence Canals—			
Coteau Landing, Beauharnois canal		13,393 15	13,393 15
" Soulanges canal	8 00	3,514 49	3,522 49
Cornwall	1,299 14	22,478 50	23,777 64
Cardinal, Williamsburg canal	25 00	2,777 10	2,802 10
Lachine Canal, Montreal	15,842 66	144,750 91	160,593 57
" Lachine	813 34	88 00	901 34
Total	17,988 14	187,002 15	204,990 29
Chambly Canal—			
Chambly		600 00	600 00
St. Johns	8 00	44 00	52 00
St. Ours		55 00	55 00
Total	8 00	699 00	707 00
Ottawa River Canals—			
Carillon and Grenville canals		48 00	48 00
" Grenville		11 00	11 00
" Carillon		484 00	484 00
Ste. Anne's lock	92 00	125 00	217 00
Chats Falls canal		2 00	2 00
Total	92 00	670 00	762 00
Rideau Canal		483 00	483 00
Ottawa	150 00	5,785 73	5,935 73
Kingston Mills	10 00	528 50	538 50
Smiths Falls	55 00	163 62	218 62
Total	215 00	6,960 85	7,175 85
St. Peter's canal		5 00	5 00
Murray canal		248 00	248 00
Trent canal	139 50	4,022 83	4,162 33
Sault Ste. Marie canal		116 00	116 00
Grand total	44,114 26	321,896 43	366,010 69
Net amount deposited to credit of Receiver General			366,010 69

STATEMENT of Hydraulic and Other Rents, Showing Rent Accrued, Paid and Balances due March 31, 1921.

Balance due April 1, 1920.	Hydraulic and other rents accrued.	Lock House Rents.	Totals.	Canals.	Abatement for overcharges.	Deposited to the credit of the the Receiver General.		Balance due March 31, 1921	Totals.
						Lock House Rents.	Hydraulic Rents, etc.		
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
66,201 61	121,541 50		187,743 11	Welland	5,523 50		116,313 85	65,905 76	187,743 11
741 00	5,577 75		6,318 75	Welland Ship	44 00		5,858 75	416 00	6,318 75
6,348 67	2,472 10	216 00	9,036 77	Williamsburg	3,157 67	198 00	2,579 10	3,102 00	9,036 77
1,107 50	22,553 50		23,661 00	Cornwall	1,192 50		22,468 50		23,661 00
5,767 09	14,816 15		20,583 24	Beauharnois	431 25		13,393 15	6,758 84	20,583 24
31,781 85	146,660 50	204 00	178,646 35	Lachine	20,930 56	187 00	144,517 70	13,011 09	178,646 35
851 84	132 00	651 00	1,634 84	Chambly	30 84	599 00	85 00	920 00	1,634 84
9,380 53	7,881 88	1,908 00	19,170 41	Rideau	2,738 41	1,788 00	5,172 85	9,471 15	19,170 41
57,323 44	167,606 84	1,620 70	226,550 98	Trent	316 49	1,480 50	2,542 33	222,211 66	226,550 98
50 00	116 00		166 00	Sault Ste. Marie	50 00		116 00		166 00
21,380 08	647 00	192 00	22,219 08	Carillon and Grenville	5 83	176 00	367 00	21,670 25	22,219 08
	3,286 49	276 00	3,562 49	Soulanges		253 00	3,261 49	48 00	3,562 49
4 00	33 00	120 00	157 00	St. Annes Lock	1 00	15 00	35 00	16 00	157 00
1 00	1 00		2 00	Chat Falls			2 00		2 00
	7 00		7 00	St. Peters			5 00	2 00	7 00
10 00	13 00	240 00	263 00	Murray		235 00	23 00	5 00	263 00
200,948 61	493,345 71	5,427 70	699,722 02		34,422 05	5,021 50	316,740 72	343,537 75	699,722 02

Welland Ship Canal.—Amounts Expended on Construction.

	Year ending.	Capital.
		$ cts.
Government expenditure	1914	994,257 60
" "	1915	4,074,200 69
" "	1916	4,892,105 15
" "	1917	3,513,769 82
" "	1918	1,235,046 59
" "	1919	1,823,875 96
" "	1920	3,499,963 35
" "	1921	5,070,297 57
Total		25,103,516 73

Expenditure as above		$25,103,516 73
To which add the preliminary expenditure for surveys, borings, etc., charged to Welland Canal capital as follows:—		
1905–06	$ 13,231 97	
1906–07	10,825 27	
1907–08	8,300 34	
1908–09	19,993 37	
1909–10	9,979 91	
1910–11	21,229 35	
1911–12	23,138 60	
1912–13	112,890 92	
1915–16	17,627 36	
		237,217 09
Total cost of Welland Ship Canal to March 31, 1921		$25,340,733 82

Hudson Bay Railway.—Amounts Expended on Construction.

		Year ending.	Capital.
			$ cts.
Government expenditure		1909	92,427 83
" "		1910	53,042 63
" "		1911	184,149 81
" "		1912	159,632 00
" "		1913	1,099,063 15
" "		1914	4,498,717 25
" "		1915	4,773,743 99
" "		1916	4,889,131 77
" "		1917	2,604,279 94
" "		1918	1,879,699 00
" "	$ 17,671 02	1919	562,557 80
Less proceeds of sale of railway materials to Can. National Railways	253,279 50	1920	*235,608 48*
Government expenditure		1921	30,036 19
Total			20,590,872 88
Less proceeds sale of S.S. *Sheba*			151,099 90
Total to March 31, 1921			$20,439,772 98

Quebec Bridge.—Amounts Expended on Construction.

	Year ending.	Capital.	Income.
		$ cts.	$ cts.
Government expenditure	1909		422,867 12
" "	1910		111,788 02
" "	1911	227,563 40	
" "	1912	603,293 07	
" "	1913	1,512,825 96	
" "	1914	2,604,105 61	
" "	1915	2,816,305 10	
" "	1916	2,746,813 70	
" "	1917	2,733,677 00	
" "	1918	931,278 01	
" "	1919	656,761 79	
" "	1920	*880 65*	
" "	1921		24,555 50
		14,831,742 99	559,210 64
Less amount received from Phoenix Bridge Co			100,000 00
		14,831,742 99	459,210 64

Capital expenditure as above		$14,831,742 99
In this expenditure a total of $91,188.10 has been credited, being received for sale of scrap and used material from the collapsed bridge.		
Add amounts paid by the Finance Department no included above:—		
Amount guaranteed by Act of 1903, Chap. 54	6,424,781 00	
Amount paid to the province of Quebec	250,000 00	
Amount paid to the city of Quebec	300,000 00	
Amount paid to Emile Tanguay, as per Supreme Court Award	485 20	6,975,266 20
		21,807,009 19
Less amount received from the Phoenix Bridge Co		100,000 00
Agrees with Public Accounts Balance Sheet, 1919		21,707,009 19
To which add the expenditure under Income, 1909, 1910 and 1921	559,210 64	
Add also amount paid for subsidies in 1901, 1902 and 1903	374,353 33	
		933,563 97
Total expenditure to date of March 31, 1921		22,640,573 16

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EXPENDITURE on the Canadian Government Railways to March 31, 1921.

CAPITAL ACCOUNT.

Railways.	Previous Years.	Year ending March 31, 1921.	Total.
	$ cts.	$ cts.	$ cts.
Intercolonial Railway System as follows:—			
Canada Eastern Ry	819,000 00		819,000 00
Cape Breton Ry	3,860,679 14	103,753 42	3,964,432 56
Drummond County Ry	1,464,000 00		1,464,000 00
Eastern Extension Ry	1,324,042 81		1,324,042 81
Montreal and European Ry	333,942 72		333,942 72
Oxford and New Glasgow Ry	1,949,063 21		1,949,063 21
Intercolonial Ry	131,240,981 19	1,681,131 16	132,922,112 35
Total	140,991,709 07	1,784,884 58	142,776,593 65
New Brunswick and Prince Edward Island Ry	529,381 32	88,933 54	618,314 86
Prince Edward Island Ry	12,749,112 00	56,924 27	12,806,036 27
International Railway of New Brunswick	2,858,394 69	37,959 74	2,896,354 43
National Transcontinental Ry	166,698,645 64	1,113,921 91	167,812,567 55
Moncton and Buctouche Ry	100,031 53	49,584 22	149,615 75
Salisbury and Albert Ry	127,782 71	171,996 80	299,779 51
St. Martins Railway	124,949 23	114,833 94	239,783 17
Elgin and Havelock Ry	71,440 22	46,763 93	118,204 15
York and Carleton Ry	21,208 94	838 91	22,047 85
Quebec and Saguenay Ry	7,374,508 74	333,816 50	7,708,325 24
Caraquet and Gulf Shore Ry		229,600 00	229,600 00
Lotbinière and Megantic Ry		346,715 00	346,715 00
Hudson Bay Railway	20,560,836 69	*121,063 71*	20,439,772 98
Canadian Northern Ry	9,999,999 90		9,999,999 90
Annapolis and Digby Ry	660,683 09		660,683 09
*a*European and North American Ry	88,363 18		88,363 18
*a*Nova Scotia Railway	208,509 72		208,509 72
*c*Carleton Branch Ry	48,410 48		48,410 48
Canadian Govt. Rys. Rolling Stock	38,748,236 94	840,825 31	39,589,062 25
Canadian Pacific Ry	62,789,776 09		62,789,776 09
Yukon Territory Works, Stikine Teslin Railway	283,323 55		283,323 55
Governor General's Cars	71,538 82		71,538 82
Miscellaneous expenditure	18,345 00		18,345 00
Total	465,125,187 55	5,096,534 94	470,221,722 49
*b*Quebec Bridge	14,831,742 99		14,831,174 99
	479,956,930 54	5,096,534 94	485,053,465 48

*a*Amount paid on this line, between 1868 and 1873, inclusive, was transferred to Consolidated Fund.
*b*See Special Statement.
*c*This Railway, which cost $88,410.48, was sold in 1893 to the City of St. John, N.B., for $40,000. (Vict. Cap. 6).

EXPENDITURE on the Canadian Government Railways to March 31, 1921.

INCOME ACCOUNT.

Railways.	Previous years.	1920.	Total.
	$ cts.	$ cts.	$ cts.
Annapolis and Digby Ry	8,381 82		8,381 82
Intercolonial Ry	280,000 00		280,000 00
Miscellaneous expenditure	4,817,737 56	589,383 58	5,407,121 14
Total	5,106,119 38	589,383 58	5,695,502 96
Quebec Bridge	434,655 14	24,555 50	459,210 64
Total	5,540,774 52	613,939 08	6,154,713 60

EXPENDITURE on the Canadian Government Railways to December 31, 1920.

REVENUE ACCOUNT—WORKING EXPENSES.

Railways.	Previous Years.	1920.	Total.
	$ cts.	$ cts.	$ cts.
*Intercolonial Railway	313,759,144 89	26,708,187 87	340,467,332 76
Prince Edward Island Ry	17,253,056 00	1,329,349 19	18,582,405 19
International Ry. of New Brunswick	2,005,026 56		2,005,026 56
Moncton and Buctouche Ry	185,152 76	76,312 92	261,465 68
Salisbury and Albert Ry	249,370 83	126,934 16	376,304 99
St. Martins Ry	118,414 33	62,714 39	181,128 72
York and Carleton Ry	52,165 04	22,646 06	74,811 10
Elgin and Havelock Ry	112,305 12	53,992 81	166,297 93
St. John and Quebec Ry	935,023 52	444,116 11	1,379,139 63
National Transcontinental Ry	50,872,275 39	14,579,155 76	65,451,431 15
Quebec and Saguenay Ry		44,598 93	44,598 93
Caraquet and Gulf Shore Ry		106,121 41	106,121 41
Lotbinière and Megantic Ry		43,171 86	43,171 86
Cape Breton Ry		24,432 31	24,432 31
Hudson Bay Ry		149,237 32	149,237 32
Canadian Pacific Ry	318,216 30		318,216 30
Eastern Extension Ry	538,094 06		538,094 06
Miscellaneous expenditure	134,789 97	2,000 00	136,789 97
Total	386,533,034 77	43,772,971 10	430,306,005 87
‡Intercolonial Railway—Improvement and Betterments	2,586,230 21		2,586,230 21
Total	389,119,264 98	43,772,971 10	432,892,236 08

*Including expenditure on the Baie des Chaleurs Railway in 1897, amounting to $18,679.97.

‡This charge to Working Expenses was credited to Rolling Stock account for the purchase of rolling stock out of the earnings of the railway.

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Revenue Received by the Canadian Government Railways to December 31, 1920

Railways	Previous Years	1920–21	Total
	$ cts.	$ cts.	$ cts.
Intercolonial Railway	301,487,042 72	23,656,630 73	325,143,673 45
New Brunswick and Prince Edward Island Railway	114,170 90	†	114,170 90
Prince Edward Island Railway	11,497,659 61	750,973 63	12,248,633 24
International Railway	806,942 71		806,942 71
Moncton and Buctouche Railway	82,950 74	47,251 95	130,202 69
Salisbury and Albert Railway	104,021 16	59,187 46	163,208 62
St. Martin's Railway	34,390 30	22,070 77	56,461 07
York and Carleton Railway	16,065 50	5,687 38	21,752 88
Elgin and Havelock Railway	35,835 90	14,776 51	50,612 41
St. John and Quebec Railway	491,800 60		491,800 60
National Transcontinental Railway	39,553,480 22	11,853,128 70	51,406,608 92
Lotbinière and Megantic Railway		22,001 27	22,001 27
Caraquet and Gulf Shore Railway		72,725 29	72,725 29
Cape Breton Railway		9,655 66	9,655 66
Quebec and Saguenay Railway		30,890 99	30,890 99
Hudson Bay Railway		97,652 15	97,652 15
Canadian Pacific Railway	396,473 75		396,473 75
Eastern Extension Railway	462,465 68		462,465 68
Total	355,083,299 79	36,642,632 49	391,725,932 28

† Revenue included with the Intercolonial Railway.

Miscellaneous Expenditure common to both Railways and Canals, including War appropriation, to March 31, 1921

INCOME ACCOUNT

Expenditure previous to 1918–19		2,585,735 54
Expenditure during 1918–19		2,871,849 71
Expenditure during 1919–20		424,683 75
Expenditure during 1920–21		589,383 58
Total		6,471,652 58

Expenditure common to both Railways and Canals to March 31, 1921

REVENUE ACCOUNT

——	Previous Years	1920–21	Total
	$ cts.	$ cts.	$ cts.
Expenditure	69,711 05		69,711 05

Expenditure common to both Railways and Canals to March 31, 1921

CAPITAL ACCOUNT

——	Previous Years	1920–21	Total
	$ cts.	$ cts.	$ cts.
Expenditure	1,853,207 67	15,543,375 46	17,396,581 13

GOVERNMENT RAILWAYS

Recapitulation of Expenditure and Revenue to March 31, 1921

——	Year	Capital	Revenue		Revenue received
			Improvement and Betterment	Working expenses	
Expenditure prior to Confederation		$ cts. 13,881,460 65	$ cts.	$ cts.	$ cts.
Since Confederation—					
1868 to 1877 inclusive		33,476,607 70		10,059,936 93	7,270,634 05
" "	1878	2,643,741 72		2,032,873 05	1,514,846 38
" "	1879	2,507,053 71		2,233,496 34	1,419,955 60
" "	1880	6,109,077 14		1,851,489 26	1,739,137 25
" "	1881	5,577,236 73		2,220,421 39	2,200,486 25
" "	1882	5,175,046 61		2,310,638 54	2,237,583 39
" "	1883	11,707,619 02		2,636,551 70	2,541,205 41
" "	1884	14,013,074 89		2,613,508 87	2,551,937 97
" "	1885	11,224,244 54		2,749,710 53	2,624,243 07
" "	1886	4,443,220 17		2,819,973 50	2,629,336 35
" "	1887	1,846,887 18		3,152,650 40	2,840,747 88
" "	1888	1,765,582 11		3,621,076 62	3,166,253 22
" "	1889	2,709,857 37		3,513,063 67	3,167,542 67
" "	1890	2,392,767 99		3,846,044 42	3,203,874 11
" "	1891	1,184,317 34		3,949,263 73	3,181,888 56
" "	1892	417,425 73		3,748,597 77	3,136,393 51
" "	1893	712,917 44		3,288,629 62	3,262,505 62
" "	1894	585,749 01		3,226,208 13	3,179,019 57
" "	1895	376,814 83		3,197,846 17	3,129,450 37
" "	1896	324,774 72		3,254,442 64	3,140,678 47
" "	1897	204,624 31		3,195,959 58	3,060,074 38
" "	1898	270,990 85		3,507,248 88	3,313,847 10
" "	1899	1,112,348 47		3,696,612 31	3,940,570 11
" "	1900	3,309,130 42		4,665,228 06	4,774,161 87
" "	1901	3,922,989 37		5,739,051 54	5,213,381 24
" "	1902	5,386,611 24		5,861,099 54	5,918,990 43
" "	1903	3,089,680 86		6,474,134 20	6,584,598 77
" "	1904	2,619,059 86		7,599,958 57	6,627,255 51
" "	1905	6,125,481 79		8,906,154 35	7,050,892 11
" "	1906	6,102,565 74		7,893,653 49	7,950,552 97
" "	1907	7,174,370 17		6,328,745 65	6,509,186 49
" "	1908	23,684,005 25		9,595,295 43	9,534,569 04
" "	1909	29,414,227 34		9,764,586 51	8,894,420 42
" "	1910	21,505,975 91		9,095,903 96	9,647,963 71
" "	1911	24,532,466 18		10,037,878 77	10,249,394 38
" "	1912	23,108,805 52		11,074,852 80	11,034,165 83
" "	1913	17,375,968 10		12,499,925 65	12,442,203 46
" "	1914	21,628,095 15		13,559,225 45	13,394,317 37
" "	1915	21,865,663 92		12,474,453 85	12,149,357 32
" "	1916	21,155,255 19	1,515,895 57	17,891,484 65	18,427,908 65
" "	1917	12,003,649 70	1,070,334 64	24,725,571 90	23,539,758 61
" "	1918	34,699,416 96		33,400,460 45	27,240,956 87
" "	1919	40,193,180 64		43,889,626 07	38,013,725 69
" "	1920	11,593,148 00		48,194,709 86	41,402,061 36
" "	1921	5,096,534 94		43,770,971 10	36,814,349 70
Total		471,466,675 63	2,586,230 21	430,169,215 90	391,866,392 09

Total amount of capital expenditure	$ 471,466,675 63
Less amount received from the city of St. John, N.B., as purchase price of the Carleton Branch Railway	40,000 00
*Net amount of capital expenditure	$ 471,426,675 63

*Cost of Quebec Bridge, not included nor $16,000 miscellaneous expenditure in 1914.

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Total Expenditure and Revenue of the Department of Railways and Canals prior to and since Confederation to March 31, 1921

	$ cts.	$ cts.
Grand Total Expenditure		1,210,358,992 83
Expenditure on railways	907,737,649 75	
" Quebec bridge	15,290,953 63	
" railway subsidies	76,391,471 09	
" miscellaneous	23,937,944 76	
" canals	187,000,973 60	
Total expenditure		1,210,358,992 83
Classification of Expenditure in General—		
Capital account	638,320,927 66	
Revenue account	471,344,342 73	
Income account	24,302,251 35	
Consolidated Fund—Railway subsidies	76,391,471 09	
Total expenditure		1,210,358,992 83
Classification of Expenditure in Detail—		
Railways—		
Capital	469,149,869 25	
Income	5,695,544 42	
Revenue	432,892,236 08	
		907,737,649 75
Quebec Bridge—		
Capital	14,831,742 99	
Income	459,210 64	
		15,290,953 63
Railway subsidies		76,391,471 09
Total expenditure on railways	$999,420,074 47	
Canals—		
Capital	136,942,734 29	
Income	11,675,843 71	
Revenue—Staff	21,621,601 30	
Revenue—Repairs	16,760,794 30	
		187,000,973 60
Miscellaneous expenditure—		
Capital	17,396,581 13	
Income	6,471,652 58	
Revenue	69,711 05	
		23,937,944 76
Grand total expenditure		1,210,358,992 83
REVENUE RECEIVED		
Grand Total of Revenue Received from July 1, 1867, to March 31, 1921.		
Railways	391,866,392 09	
Canals	18,275,998 15	
Grand total		410,142,390 24

II.—Statement showing Subsidies paid to March 31, 1921.

Subsidies Voted.		Number.	Railways.	July 1, 1883, to March 31, 1917.	1917-18.	1918-19.	1919-20.	Total to March 31, 1920.
Authority.	Amount.							
	$ cts.			$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
47 Vic., chap. 8	51,200 00	1	Albert Southern Railway, N.B.	50,460 00				50,460 00
52 " 3								
3-4 Geo. V, chap. 46	—	2	Alberta Central Railway, Alta.	404,480 00				404,480 00
62-3 Vic., chap. 7								
63-4 " 8	—	3	Algoma Central and Hudson Bay Ry., Ont.	2,048,704 00				2,048,704 00
1 Ed. VII, chap. 7								
9-10 " 51	—	4	Algoma Eastern Ry. Co., formerly Manitoulin and North Shore Ry. Co., Ontario	547,648 00				547,648 00
1 " 7	—	5	Atlantic and Lake Superior Ry., Quebec	a163,418 19				a163,418 19
37 Vic., chap. 14	186,500 annually for 20 years	6	Atlantic and Northwestern Railway	3,732,000 00				3,732,000 00
6 Ed. VII, chap. 45	—	7	Atlantic, Quebec and Western Ry. Co., Quebec	902,800 00				902,800 00
9-10 " 51								
46 Vic., chap. 25								
47 " 8	320,000 00	8	Baie des Chaleurs Railway, Quebec	620,000 00				620,000 00
52 " 3	300,000 00							
	—	9	Bay of Quinte Railway, Ontario, now (1918) Canadian Northern Ry.	141,722 45				141,722 45
50 1 Vic., chap. 27	62,400 00	10	Beauharnois Junction Railway, Quebec.	62,400 00				62,400 00
56 " 4								
48 9 " 54	22,400 00	11	Belleville and North Hastings Railway, Ontario	21,888 00				21,888 00
49 " 19								
50 1 " 24	57,600 00	12	Brantford, Waterloo and Lake Erie Ry., Ontario	57,600 00				57,600 00
51 8 " 4								
48 9 " 59	128,000 00							
53 " 27		13	Brockville, Westport and Sault Ste. Marie Railway, Ontario, now (1918) Canadian Northern Ry.	140,800 00				140,800 00
54 5 " 8	64,000 00							
57 8 " 4								
—	—	15	Bruce Mines and Algoma Railway, Ontario	53,920 00				53,920 00
49 Vic., chap. 10	96,000 00							
50 1 " 24	6,400 00	14	Buctouche and Moncton Railway, New Brunswick	101,600 00				101,600 00
48 9 " 59	96,000 00							
49 " 10	38,400 00	16	Canada Atlantic Railway, Ontario	282,355 20				282,355 20
50 1 " 24	180,000 00							
47 " 8	128,000 00							
48 9 " 59	19,200 00							
49 " 10	32,000 00							

App. Act. 2, 1918	175,000 00	16	Canada Central Ry., Alberta	.....	.....	175,000 00	.....	175,000 00
48-9 " 59	24,439 84	17	Canada Eastern Ry., formerly Northern and Western Ry., New Brunswick, including also Chatham Branch Ry	374,839 84	.....	.....	.....	374,839 84
51 " 3	140,800 00							
57-8 " 4	35,200 00							
62 3 " 7	—	18	Canada and Gulf Terminal Ry. Co.	210,053 59	.....	.....	.....	210,053 59
47 Vic., chap. 8	32,000 00							
49 " 10	57,600 00							
52 " 3	22,400 00							
53 " 2	48,000 00	19	Canadian Northern Quebec Ry. Co., formerly Great Northern Ry., Quebec	1,265,357 14	.....	.....	.....	1,265,357 14
56 " 2	47,000 00							
57-8 " 4	70,400 00							
7-8 Ed. VII, c. 63	—							
2 Geo. V, chap. 7	—	20	Canadian Northern Alberta Ry. Co., Alberta	3,094,104 00	.....	25,896 00	.....	3,120,000 00
3-4 " 10								
6-7 Ed. VII, c. 40	—	21	Canadian Northern Ontario Ry. Co.	14,386,762 51	80,963 37	17,909 32	.....	14,485,635 20
7-8 " 63								
"	—	22	Canadian Northern Ry. Co., Ontario, Manitoba and North West Territories	1,909,132 00	.....	.....	.....	1,909,132 00
2 Geo. V, chap. 9	—	23	Canadian Northern Pacific Ry. Co., British Columbia	5,648,626 37	338,893 63	.....	.....	5,987,520 00
—	—	24	Canadian Northern Quebec Ry., formerly Chateauguay and Northern Ry., Quebec	391,819 75	.....	.....	.....	391,819 75
60-61 Vic., chap. 5	3,630,000 00	25	Canadian Pacific Ry. Co., British Columbia (Crow's Nest Pass)	3,404,720 00	.....	.....	.....	3,404,720 00
—	—	26	Canadian Pacific Ry. Co. (Dyment Branch)	22,336 00	.....	.....	.....	22,336 00
2 Geo. V, chap. 48	—	27	Canadian Pacific Ry., Bridge at Edmonton, Alberta	126,000 00	.....	.....	.....	126,000 00
3-4 " 46	—	28	Canadian Pacific Ry., Gimli to Icelandic River Bridge	80,032 00	.....	.....	.....	80,032 00
—	—	29	Can. Pac. Ry. Co. (Kootenay and Arrowhead Branch)	153,866 00	.....	.....	.....	153,866 00
7-8 Ed. VII, c. 63	—	30	Can. Pac. Ry. Co., Moosejaw northwesterly	485,474 27	.....	.....	.....	485,474 27
2 Geo. V, chap. 48	—	31	Can. Pac. Ry. Co., Bridge at Outlook	115,000 00	.....	.....	.....	115,000 00
—	—	32	Can. Pac. Ry. Co. (Pheasant Hills Branch)	435,200 00	.....	.....	.....	435,200 00
—	—	33	Can. Pac. Ry. Co. (Pipestone Branch)	160,000 00	.....	.....	.....	160,000 00
55 6 Vic., chap. 5	80,000 00	34	Can. Pac. Ry. Co. (Revelstoke to Arrow Lake)	80,000 00	.....	.....	.....	80,000 00
"	—	35	Can. Pac. Ry. Co. (Selkirk Branch)	83,200 00	.....	.....	.....	83,200 00
4 Ed. VII, chap. 34	—	36	Can. Pac. Ry. Co. (Staynerville Branch)	13,024 00	.....	.....	.....	13,024 00
6 " 43	—	37	Can. Pac. Ry. Co. (Teulon to Icelandic River)	112,000 00	.....	.....	.....	112,000 00
—	—	38	Can. Pac. Ry. Co. (Waskada Branch)	64,000 00	.....	.....	.....	64,000 00
7 8 Ed. VII, c. 63	—	39	Can. Pac. Ry., Winnipeg to Gimli, Man	34,522 43	.....	.....	.....	34,522 43
48 9 Vic., chap. 58	1,500,000 00	40	Canadian Pacific Extension	1,500,000 00	.....	.....	.....	1,500 000 00
57 8 " 4	9,000 00	41	Cap de la Magdeleine Railway, Quebec	7,424 00	.....	.....	.....	7,424 00
—	—	42	Cape Breton Extension Railway, Nova Scotia	196,800 00	.....	.....	.....	196,800 00
46 Vic., chap. 25	115,200 00							
47 " 8	76,800 00	43	Caraquet Railway, New Brunswick	224,000 00	.....	.....	.....	224,000 00
50-1 " 24	32,000 00							
47 " 8								
51 " 3								
52 " 3	83,612 00							
53 " 2	142,400 00	44	Central Railway, New Brunswick	226,012 54	.....	.....	.....	226,012 54
57-8 " 4	48,000 00							
61 " 1								
62-3 " 1								
2 Ed. VII, chap. 48	—							

II.—Statement showing Subsidies paid to March 31, 1921.—*Continued*

Subsidies Voted.		Number.	Railways.	July 1, 1883, to March 31, 1917.	1917-18.	1918-19	1919-20.	Total to March 31, 1920.
Authority.	Amount.							
	$ cts.			$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
46 Vic., chap. 2	1,525,250 00	45	Central Railway of Canada, Quebec	30,145 02				30,145 02
7 " 8		46	Central Canada Railway	1,525,250 00				1,525,250 00
6-7 Ed. VII, c. 40	—	47	Central Ontario Railway Co., Ontario, now (1918) Canadian Northern Ry	205,862 79				205,862 79
—		48	Coast Line of Nova Scotia (Halifax and Yarmouth Ry.), now (1918) Canadian Northern Ry	160,000 00				160,000 00
6 Ed. VII, chap. 43	—	49	Colchester Coal and Railway Co., Nova Scotia	12,800 00				12,800 00
53 Vic., chap. 2	112,000 00	50	Columbia and Kootenay Ry. Co., British Columbia	88,800 00				88,800 00
50-1 " 24	44,800 00	51	Cornwallis Valley Railway Co., Nova Scotia	44,800 00				44,800 00
52 " 3								
50-1 " 24	44,800 00	52	Cumberland Railway and Coal Co., Nova Scotia	39,850 00				39,850 00
5-6 " 5	89,600 00	53	Dominion Coal Company, Nova Scotia	87,808 00				87,808 00
50-1 " 24	22,400 00	54	Dominion Lime Company, Quebec	15,360 00				15,360 00
50-1 " 24	96,000 00							
52 " 3	14,400 00	55	Drummond County Railway, Quebec	423,936 00				423,936 00
53 " 2	76,800 00							
57-8 " 4	96,000 00							
"	—	56	East Richelieu Valley Railway Co., Quebec (Quebec Montreal and Southern Ry.)	69,952 00				69,952 00
3-4 Geo. V, chap. 46	—	57	Edmonton, Dunvegan and British Columbia Railway, Alberta	125,202 84			213,179 64	338,382 48
6-7 Ed. VII, c. 40	—	58	Edmonton, Yukon and Pacific Railway Co., Alberta, now (1918) Canadian Northern Ry	91,200 00				91,200 00
46 Vic., chap. 25	38,400 00	59	Elgin, Petitcodiac and Havelock Railway, N.B.	82,652 82				82,652 82
51 " 3	44,252 82							
47 " 8	96,000 00	60	Erie and Huron Railway, Ontario	96,000 00				96,000 00
47 " 6	750,000 00	61	Esquimalt and Nanaimo Railway, British Columbia	1,520,560 00				1,520,560 00
2 Geo. V, chap. 48	—	62	Fredericton and Grand Lake Railway Co., New Brunswick	216,576 00				216,576 00
52 Vic., chap. 3	30,000 00	63	Fredericton and St. Mary's Ry. Bridge Co., New Brunswick	30,000 00				30,000 00
60-61 " 4	500,000 00	64	Grand Trunk Ry. Co., Victoria Jubilee Bridge, Quebec	500,000 00				500,000 00
63 " 3								
56 " 2	48,000 00	65	Grand Trunk, Georgian Bay and Lake Erie Ry., Ontario	39,744 00				39,744 00
7-8 Ed. VII, c. 63	—	66	Grand Trunk Pacific Ry. Co.	1,220,480 00				1,220,480 00

49 Vic., chap.	10	32,000 00								
50-1 "	24	96,000 00	67	Great Eastern Railway, Quebec	40,345 00					40,345 00
56 "	2	64,000 00								
53 "	2	37,500 00								
50-1 "	24	51,200 00	68	Guelph Junction Railway, Ontario	46,000 00					46,000 00
57-8 "	4	—	69	Gulf Shore Railway Company, New Brunswick	53,699 20					53,699 20
9-10 Ed. VII, c.	51	—	69½	Ha-Ha-Bay Railway Co., Quebec	231,462 00					231,462 00
—		—	70	Halifax and Southwestern Railway Co., Nova Scotia, now (1918) Canadian Northern Ry	1,238,450 93					1,238,450 93
50-1 Vic., chap.	24	9,600 00	71	Harvey Branch Railway Co., New Brunswick	5,553 57					5,553 57
49 "	10	108,800 00	72	Hereford Railway, Quebec	155,200 00					155,200 00
52 "	3	48,000 00								
46 "	25	156,800 00	73	Internatonal Railway Quebec	156,800 00					156,800 00
53 "	3									
7-8 Ed. VII, c.	63	—	74	International Ry. of New Brunswick, formerly Restigouche and Western Ry. Co	726,080 00					726,080 00
—		—	75	Inverness Railway and Coal Co	368,545 97					368,545 97
47 Vic., chap.	8	160,000 00	76	Irondale, Bancroft and Ottawa Railway, Ontario, now (1918) Canadian Northern Ry	144,000 00					144,000 00
52 "	3									
49 "	10	38,400 00	77	Joggins Railway, Nova Scotia	37,500 00					37,500 00
50-1 "	24	4,000 00								
6 Ed. VII, chap.	43	—	78	Kettle Valley Ry., British Columbia	2,174,190 72					2,174,190 72
46 Vic., chap.	24	89,600 00								
49 "	10	70,000 00								
50-1 "	24	12,800 00	79	Kingston, Napanee and Western Ry., formerly Napanee, Tamworth and Quebec Ry., Ontario, now (1918) Canadian Northern Ry	208,732 80					208,732 80
52 "	3	32,000 00								
55-6 "	5	64,000 00								
47 Vic., chap.	8	48,000 00	80	Kingston and Pembroke Ry., Ontario	48,000 00					48,000 00
6-Ed. VII, chap.	43	—	81	Klondike Mines Railway	197,184 00					197,184 00
2 "	48	—	82	Kootenay Central Ry. Co., British Columbia	1,065,856 00					1,065,856 00
50-1 Vic., chap.	23	118,400 00								
55-6 "	4	224,000 00	83	Lake Erie and Detroit River Railway, Ontario	475,851 00					475,851 00
62 3 "	5	—								
2 Geo. V, chap.	48	—	84	Lake Erie and Northern Ry. Co., Ontario	320,192 00					320,192 00
50-1 Vic., chap.	24	65,022 00	85	Lake Temiscamingue Colonization Ry., Quebec	310,335 95					310,335 95
57-8 "	4	247,940 00								
49 "	10	11,200 00	86	L'Assomption Railway, Quebec	11,200 00					11,200 00
50-1 "	24	217,600 00	87	Laurentian Railway, now (1918) Canadian Northern Ry	217,600 00					217,600 00
48-9 "	50	44,800 00	88	Leamington and St. Clair Ry., Ontario	51,200 00					51,200 00
50-1 "	24	6,400 00								
6-7 Ed. VII, c.	40	—	89	Liverpool and Milton Ry., now (1918) Canadian Northern Ry	32,000 00					32,000 00
45 Vic., chap.	14	—	90	Lindsay, Bobcaygeon, Pontypool Ry. Co., Ontario	185,173 06					185,173 06
—										
55-6 Vic., chap.	5	48,000 00	91	Lotbinière and Megantic Railway Quebec	96,000 00					96,000 00
57-8 "	4	48,000 00								
—		—	92	Maganetawan River Railway Co., Ontario	3,552 00					3,552 00

II.—Statement showing Subsidies paid to March 31, 1921.—*Continued*

Subsidies Voted.		Number.	Railways.	July 1, 1883, to March 31, 1917.	1917 18.	1918 19.	1919-20.	Total to March 31, 1920.
Authority.	Amount.							
	$ cts.			$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
7-8 Ed. VII, c. 63	—	93	Maritime Coal and Railway Co.	3,200 00				3,200 00
—	—	94	Massawippi Valley Railway Co., Quebec	5,376 00				5,376 00
—	—	95	Midland Railway Co., Nova Scotia	399,060 40				399,060 40
—	—	96	Middleton and Victoria Beach Railway Co., Nova Scotia, now (1918) Canadian Northern Ry.	125,760 00				125,760 00
3 Ed. VII, chap. 57	—	97	Minudie Coal Co., Nova Scotia	18,544 00				18,544 00
56 Vic., chap. 2	67,200 00							
57-8 " 4	38,400 00	98	Montfort Colonization Railway, Quebec, now (1918) Canadian Northern Ry.	167,440 00				167,440 00
60-1 " 4	66,000 00							
48-9 " 59	30,000 00							
50-1 " 24	64,000 00	99	Montreal and Champlain Junction Railway, Quebec	103,600 00				103,600 00
51 " 3	9,600 00							
49 " 10	32,000 00	100	Montreal and Lake Maskinonge Railway, Quebec	41,280 00				41,280 00
53 " 2	10,200 00							
50-1 " 24								
53 " 2	192,000 00	101	Montreal and Ottawa Railway, Ontario	192,000 00				192,000 00
54-5 " 8								
57-8 " 4								
1 Ed. VII, chap. 7	—	102	Montreal and Province Line Railway, Quebec	58,560 00				58,560 00
48-9 " 59	72,000 00	105	Montreal and Sorel Railway, Quebec (Quebec, Montreal and Southern Ry.)	93,757 57				93,757 57
53 " 2	40,000 00							
53 Vic., chap. 2	361,270 00	104	Montreal and Western Railway, Quebec	361,270 00				361,270 00
57-8 " 4	121,600 00	105	Nakusp and Slocan Railway, British Columbia	117,760 00				117,760 00
6 Ed. VII, chap. 43	—	106	Napierville Junction Railway Co., Quebec	175,440 00				173,440 00
—	—	107	New Brunswick Coal and Railway Co., New Brunswick	48,000 00				48,000 00
48-9 Vic., chap. 59	118,400 00	108	New Brunswick and Prince Edward Island Railway	113,440 00				113,440 00
55-6 " 5	40,000 00	109	New Glasgow Iron, Coal and Railway Co., Nova Scotia	39,840 00				39,840 00
Ed. VII, chap. 57	—	110	Nicola, Kamloops and Similkameen Coal Railway Co.	300,800 00				300,800 00
7-8 " 63	—	111	North Shore Railway Co., formerly Beersville Coal and Railway Co.	27,616 00				27,616 00
—	—	112	Northern Colonization Railway Co., Quebec	355,200 00				355,200 00
2 Geo. V, chap. 47	—	113	Northern New Brunswick and Seaboard Railway Co., New Brunswick	108,160 00				108,160 00
3-4 " 46								
46 " 26	660,000 00	114	Northern and Pacific Junction Railway, Ontario	1,320,000 00				1,320,000 00
53 " 2	660,000 00							
55-6 " 5	240,000 00	115	Nova Scotia Central Railway Co., Nova Scotia, now (1918) Canadian Northern Ry.	235,200 00				235,200 00
61 "								

56	"	2	32,000 00	116	Ontario, Belmont and Northern Ry. Co., Ontario (Marmora Ry. & Mining Co.) now (1918) Canadian Northern Ry.	30,720 00						30,720 00
53 Geo. V, chap.		2	99,200 00	117	Orford Mountain Railway Company, Quebec	202,926 50						202,926 50
3 Ed. VII, chap.		2	—									
56	"	2	22,400 00	118	Oshawa Railway and Navigation Co., Ontario	22,400 00						22,400 00
55-6	"	5	—	119	Ottawa, Arnprior and Parry Sound Ry., Ontario	779,712 00						779,712 00
			—	120	Ottawa and New York Railway Company, Ontario	262,384 00						262,384 00
52	Vic., chap.	3	320,000 00	121	Ottawa, Northern and Western Railway, Quebec, formerly Ottawa and Gatineau Valley Railway	414,931 20						414,931 20
57-8	"	6	64,000 00									
60 1	"	4	—									
52	"	3	128,000 00	122	Parry Sound and Colonization Railway, Ontario	152,800 00						152,800 00
57-8	"	4	64,000 00									
			—	123	Pembroke Southern Railway, Ontario	64,000 00						64,000 00
55-6 Vic., chap.		5	—	124	Phillipsburg Junction Ry. Quarry Co., Quebec	23,712 00						23,712 00
47	"	8	272,000 00									
51	"	3	41,000 00	125	Pontiac Pacific Junction Railway, Quebec	193,578 00						193,578 00
53	"	2	24,000 00									
60-1	"	4	212,500 00	126	Pontiac Pacific and Ottawa & Gatineau Ry. Co. (Interprovincial Bridge over Ottawa River)	212,500 00						212,500 00
63-4	"	2										
52	"	3	19,200 00	127	Pontiac and Renfrew Railway, Ontario	13,600 00						13,600 00
51	"	3	287,200 00	128	Port Arthur, Duluth and Western Ry., Ontario, now (1918) Canadian Northern Ry.	271,200 00						271,200 00
53	"	2										
62-3	"	7	1,000,000 00	129	Quebec Bridge Co., Quebec	374,353 33						374,353 33
63-4	"	8										
47	"	8	60,342 00									
51	"	3		130	Quebec Central Ry., Quebec	585,038 90						585,038 90
53	"	2	288,000 00									
7-8 Ed. VII, c.		63	—									
45	Vic., chap.	14	384,000 00									
46	"	25	80,000 00									
48-49	"	59	96,000 00									
49	"	10	186,295 00									
50-1	"	24	28,800 00	131	Quebec and Lake St. John Railway, Quebec, now (1918) Canadian Northern Ry.	1,261,463 50						1,261,463 50
51	"	3	96,000 00									
52	"	3	64,000 00									
53	"	2	40,000 00									
54-5	"	8	5,250 00									
57-8	"	4	44,800 00									
52 Vic., chap.		3	96,000 00	132	Quebec, Montmorency and Charlevoix Railway Co., Quebec	96,000 00						96,000 00
56	"	3										
	—		—	132½	Quebec, Montreal and Southern Railway Co.—See South Shore Ry., Quebec.							
7-8 Ed. VII, c.		51	—	133	Quebec and Saguenay Railway Co., Quebec	248,801 28						248,801 28
	—		—	134	Schomberg and Aurora Railway Co., Ontario	46,144 00						46,144 00
52 Vic., chap.		3	163,200 00	135	Shuswap and Okanagan Railway, British Columbia	163,200 00						163,200 00
2 Geo. V, chap.		48	—	136	Southampton Railway Co., New Brunswick	81,280 00						81,280 00
50-1 Vic., chap.		24	54,400 00	137	South Norfolk Railway, Ontario	54,400 00						54,400 00

STATEMENT showing Subsidies paid to March 31, 1920—*Concluded*

Subsidies Voted.			Railways.	July 1, 1883, to March 31, 1917.	1917 18.	1918 19	1919 20.	Total to March 31, 1920.
Authority.	Amount.							
	$ cts.			$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
7-8 Ed., VII, c. 63	—	138	South Shore Railway (Quebec, Montreal and Southern), Quebec	514,811 06		14,630 94		529,142 00
50-1 Vic., chap. 24	138,300 00	139	St. Catharines and Niagara Central Railway, Ontario	38,400 00				38,400 00
55-6 " 5	108,000 00							
57-8 " 4	108,800 00							
52 " 3	375,000 00	140	St. Clair Frontier Tunnel Co., Ontario	375,000 00				375,000 00
2 Geo. V, chap. 48	—	141	St. John and Quebec Railway Co., New Brunswick	598,319 70	285,916 81	121,665 91		1,005,902 42
53 Vic., chap. 2	57,600 00							
55-6 " 5	25,024 00	142	St. Lawrence and Adirondack Railway, Quebec	149,481 60				149,481 60
60-61 " 4								
47 " 8	22,400 00	143	St. Louis and Richibucto Railway, New Brunswick	22,400 00				22,400 00
—	—	144	St. Mary River Railway Co., Northwest Territories	148,094 00				148,094 00
7-8 Ed. VII, c. 63	—	145	St. Mary's and Western Ontario Railway Co., Ontario	67,709 00				67,709 00
7-8 " 63	—	146	St. Maurice Valley Railway Co., Three Rivers to Grand'Mère, Quebec	173,120 00				173,120 00
56 Vic., chap. 2	—	146½	St. Stephen and Milltown Railway, New Brunswick	14,848 00				14,848 00
3-4 Geo. V, chap. 53	—	147	Temiskaming and Northern Ontario Railway Co., Ontario	2,134,080 00				2,134,080 00
45 Vic., chap. 14	240,000 00							
48-9 " 58	258,000 00	148	Temiscouata Railway, New Brunswick and Quebec	645,950 00				645,950 00
51 " 3	100,000 00							
53 " 2	51,200 00							
7-8 Ed. VII, c. 63	—	149	Thessalon and Northern Railway Co., Ontario	6,112 00				6,112 00
52 Vic., chap. 3	54,400 00	150	Thousand Islands Railway, Ontario	29,840 00				29,840 00
63-4 " 8								
55-6 " 5	—							
57-8 " 4	—	151	Tillsonburg, Lake Erie and Pacific Railway, Ontario	150,071 48				150,071 48
60-61 " 4	—							
62-63 " 7	—							
54-5 " 8	89,600 00							
53 " 2	35,200 00	152	Tobique Valley Railway, New Brunswick	134,016 00				134,016 00
55-6 " 5	9,600 00							
59 " 10	16,000 00	153	Toronto, Grey and Bruce Railway, Ontario	14,656 00				14,656 00
56 " 2	102,400 00	154	United Counties Railway Co., Quebec (Quebec, Montreal and Southern)	188,816 00				188,816 00
57-8 " 4	102,400 00							
7-8 Ed. VII, c. 34	—	155	Vancouver and Lulu Island Railway Co., British Columbia	61,760 00				61,760 00
53 Vic., chap. 2	35,200 00	56	Waterloo Junction Railway, Ontario	32,800 00				32,800 00

49	"	10	256,000 00	157	West Ontario Pacific Railway and Ontario and Quebec Railway	256,000 00				256,000 00
53	"	2								
62-3	"	7	—	158	York and Carleton Railway, New Brunswick	32,896 00				32,896 00
					Total	†75,117,115 47	720,404 75	218,805	32,334,845 55	†76,391,471 09

†This amount does not include the subsidy of $25,000,000 to the Canadian Pacific Railway, nor the amount of $660,683.08 expended on the Annapolis and Digby Railway, both of which are included in Capital Account, nor the annual payment of $219,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of $2,394,000 up to 1905, granted by Vic. 47, cap. 8 (1884) and the annual payment of $107,730, being interest at the rate of 4½ per cent since and including 1905 on the said sum of $2,394,000 for the line between Ottawa and Quebec which sum was transferred to the Public Debt as a liability and is dealt with by the Finance Department. *See* Public Accounts, 1889-1920, and page 79, 1898.

ACQUISITION OF GRAND TRUNK AND SUBSIDIARY CONCERNS

In the year 1903, under 3 Edward VII, Chapter 122, the Grand Trunk Pacific Railway Company was incorporated for the purpose of constructing a railway from the city of Moncton, in the province of New Brunswick, to a suitable port on the Pacific coast, with branch lines to lake Superior, Brandon, Regina, Prince Albert and Calgary, as well as a branch line to Dawson in the Yukon Territory.

There was a proviso in the Act that should the Government of Canada undertake the construction of a line of railway from the city of Winnipeg to the city of Moncton, the company should, nevertheless, have power to build branch lines therefrom, and provision was made for entering into an agreement with the Government of Canada, or its authorized commissioners, for the construction of this eastern section of the proposed railway.

Such an agreement was entered into on the 29th of July, 1903, and forms the schedule accompanying chapter 71, 3 Edward VII, "An Act respecting the construction of a National Transcontinental Railway." The preamble of this Act sets forth that "by reason of the growth in population and the rapid development in the productiveness and trade of Canada and especially of the western part thereof, and with a view to the opening up of new territory available for settlement, both in the eastern provinces and in the west,. and the affording of transportation facilities for such territory, and for other reasons, the necessity has arisen for the construction of a National Transcontinental railway across the Dominion of Canada from ocean to ocean and wholly within Canadian territory."

The Act in question confirmed the agreement under which the Government undertook to build the Eastern Section between Winnipeg and Moncton, and the Grand Trunk Pacific Railway Company undertook to build the Western Section from Winnipeg to the Pacific under terms and conditions set forth and agreed to. The Eastern Section was to be built to specifications approved by the company, and the Western Section according to plans and specifications approved by the Government.

The Government undertook to guarantee payment of principal and interest of an issue of bonds to be made by the company to finance the construction of the Western Section for a principal amount equal to 75 per cent of the cost of construction, but not in any case to exceed thirteen thousand dollars per mile of the mileage of the Prairie Section, nor thirty thousand dollars per mile of the mileage of the Mountain Section. The Government also undertook to pay the interest on the Mountain Section bonds for the first seven years, and for the succeeding three years the Government also obligated itself to meet the interest should the company be unable to do so, and to capitalize the amount so paid, and grant the company forty years for repayment at 3 per cent per annum.

On the other hand, the Grand Trunk Pacific Company undertook to lease the Eastern Section on completion and operate it for a period of fifty years, the first seven of which should be free of rental, after which rental should be paid at the rate of 3 per cent per annum upon the cost of construction. In addition, the company agreed to equip both divisions of the railway with modern and complete rolling stock suitable and amply sufficient for efficient operation and the handling of all classes of traffic to the satisfaction of the Government, and the first equipment for the completed road was to be of the value of at least twenty million dollars, of which not less than five million dollars worth was to be assigned to the Eastern Division.

SIR WM. WHYTE'S AWARD NOT COMPLIED WITH

The company exercised its privilege to build a branch line connecting Fort William with the Government section at Sioux Lookout, and before the final completion of the Eastern Division the question of operating that section of the line between Sioux Lookout and Winnipeg, rendered necessary by the construction of the Lake Superior Branch, had to be considered. On December 4, 1912, Hon. F. Cochrane, as Minister of Railways, and Mr. E. J. Chamberlain, President of the Grand Trunk Pacific Railway Company, sent a joint telegram to Sir William Whyte, at Winnipeg, requesting him to act as sole arbitrator between the Government and the Grand Trunk Pacific Railway Company, "to fix the rental to be paid for the use of that portion of the Transcontinental line between Winnipeg and Lake Superior Junction, pending completion of the entire line east to Moncton." Sir William Whyte accepted the appointment, and an agreement, dated December 20, 1912, between the Minister of Railways and Canals and the Transcontinental Commissioners on the one hand, and the Grand Trunk Pacific Railway Company on the other, was duly executed formally submitting to Sir William Whyte certain questions for his award.

The agreement above referred to provided "that the parties hereto and the company for itself, its successors and assigns, covenants and agrees with the commissioners to enter into and take a lease of said portion of said Eastern Division and said shops (Transcona) for the rental which the said arbitrator determines to be fair, until such time as the entire Eastern Division is sufficiently completed to permit of operation by way of a ferry at Quebec."

Sir William Whyte decided that a fair rental for the use of that portion of the line in question would be a sum equal to two per cent of the cost of that portion of the said railway, including the shops, and in addition a sum equivalent to ten per per cent of the cost of actual work done at the shops for the operation of the Eastern Division, and a further sum of twelve and a half per cent of the total cost of work done other than for the Eastern Division. Notwithstanding the agreement to do so the company failed to take out a lease in the terms of the award.

LEASE OF TRANSCONTINENTAL PROPOSED BY GOVERNMENT

On January 13, 1915, the Minister of Railways, Hon. F. Cochrane, wrote Mr. E. J. Chamberlain, President of the Grand Trunk Pacific Railway, suggesting that in view of the completion of the National Transcontinental Railway it was desirable that necessary conferences should be had and arrangements made for the drafting and settling of the lease by the Government to the company of the Eastern Division as stipulated by the agreement of July 29, 1903. Mr. Chamberlain replied on January 14, 1915, questioning whether the National Transcontinental Railway was completed, as contemplated by and in accordance with the agreement in question, and asking for a statement of the cost of construction on which the company would be required to pay interest. The statement submitted in response by the minister showed a cash expenditure to December 31, 1914, of $149,479,550, interest costs of $19,581,804; unpaid holdback and progress estimates of $2,000,000 and certain other items for shops and terminals amounting to $3,600,000, or a total of $174,661,354. Mr. Cochrane, however, pointed out that it was only upon the cost of work actually completed that it was proposed to calculate interest.

Later, on March 25, 1915, Mr. Cochrane, as Minister forwarded a form of lease to Mr. Chamberlain in a letter in which he stated,—

> "I find a reference in your correspondence to certain additional works still under construction by the Transcontinental Railway Commission, which additional works it was contemplated by the Commission and by your company

would ultimately be used in connection with the road as now completed. The Government, however, having been advised that the Eastern Division for purposes of operation, has been reported by the chief engineer of the Transcontinental Railway Commission as completed and ready to be leased, is of the opinion that it is in the public interest that such lease be now entered into. You will readily understand that were any other interpretation as to date of completion to be placed upon the agreement with your company, it would mean the postponement for a very considerable length of time of the taking over of this extensive line of railway by the Grand Trunk Pacific, with results that might be incompatible with the public interest. Such a postponement would be to a date very hard, if not impossible to determine, as in the one sense a railway can never be said to be complete. The responsibility for such a postponement I must decline on behalf of the Government to take."

LEASE DECLINED BY GRAND TRUNK PACIFIC

On April 27, 1915, Mr. Chamberlain replied that he could not see his way to ask his directors for authority to execute the lease. Among the reasons for such decision he mentioned the following:—

(1) The great increase in the cost of construction. The original estimate had been $61,415,000. Cost to date had been $149,479,550, not including interest.

(2) The company claimed the Eastern Division was not as yet completed in accordance with the agreement.

(3) The company contended that the road had not been constructed in accordance with the Act of 1904 or on sound business principles. As a result the completion of that portion most useful to the company and to the country and first required, namely, between Winnipeg and Cochrane, was delayed to the great loss and prejudice of the company.

GOVERNMENT FORCED TO OPERATE

Tracklaying between Moncton and Winnipeg had been completed, with the exception of the Quebec bridge, in November, 1913, and a limited service was given during the following year by the Intercolonial on the line between Moncton and Chaudière, a distance of 455·15 miles.

On the company declining to take out a lease, the Transcontinental from the city of Quebec to Winnipeg, a distance of 1,355·95 miles, was taken over for operation as part of the Canadian Government Railway System, and put in operation as such on June 1, 1915. The rolling stock, which the Grand Trunk Pacific was expected to provide, was supplied by the Intercolonial.

LAKE SUPERIOR BRANCH ISOLATED

As the Grand Trunk Pacific had failed to take out a lease of the line between Winnipeg and Superior Junction as agreed, the operation of the Transcontinental by the Government made it necessary to consider the position of the Lake Superior Branch, which thus was shut off from the Grand Trunk Pacific at Winnipeg, and on July 1, 1915, the Lake Superior Branch, 191·75 miles, was taken over by the Canadian Government Railways, having been leased from the Grand Trunk Pacific Railway, under authority of the Act of 1915, chapter 18, for a term of 999 years, at a rental of $600,000 a year, with the option of purchase at any time after March 31, 1936, for $13,333,333.

The operation of the Transcontinental by the Government, and even the leasing of the Grand Trunk Pacific Lake Superior Branch, was regarded by the Government as a temporary situation from which release might eventually be found, as witness clause 8 of the lease of the Lake Superior Branch, which provides that:—

> "If and when the company at any time during the currency of this lease, leases, takes over and operates the Eastern Division of the National Transcontinental Railway in accordance with and as provided by The Transcontinental Railway Acts' as defined in Schedule "A"' to chapter 98 of the Statutes of Canada, 1905, or if and when a judgment of any court of competent jurisdiction is obtained by the Crown directing the company to so lease the said Eastern Division, this lease shall therefrom at the option of the Crown be forthwith terminated and at an end, and the making of this lease shall not be held to prejudice in any way any claim that the Crown may have against the company for damages by reason of failure to lease the said Eastern Division at an earlier date."

FINANCIAL AID TO GRAND TRUNK PACIFIC

The Grand Trunk Pacific was subsidiary to and its stock wholly owned by the Grand Trunk Company. The Government was approached on December 10, 1915, by Mr. Smithers, to take the Grand Trunk Pacific and branch lines off the hands of the parent company on condition that the Grand Trunk surrendered to the Government the common stock of the Grand Trunk Pacific. At that time, the Government thought the situation could be met by means of loans during the next few years. This was not the first assistance that had been necessary, as the Government had loaned the Grand Trunk Pacific $10,000,000 in 1909 and $15,000,000 in 1913. A further loan of $6,000,000 was made in 1914 on a pledge of bonds. Its securities were further guaranteed by legislation of that year to the extent of $16,000,000. In 1916 a loan of $8,000,000 was authorized and $7,081,783.45 advanced. In 1917 a loan of $7,500,000 was authorized and $5,058,053.72 advanced, and in the spring of 1918 a further loan of $7,500,000 was authorized by Parliament.

NEGOTIATIONS TO ACQUIRE THE GRAND TRUNK AND GRAND TRUNK PACIFIC

By January, 1918, the affairs of both Grand Trunk and Grand Trunk Pacific were such as to make it necessary for the Government to decide whether to continue financial assistance indefinitely or acquire the properties for inclusion in the Canadian National System, which at this time included not only the original Canadian National lines, such as the Intercolonial and branch lines, but the recently acquired Canadian Northern Railway System as well.

Negotiations were conducted at various times during the year on both sides of the Atlantic. Throughout these negotiations Government made it plain that further assistance, to either Grand Trunk or Grand Trunk Pacific, under the then existing conditions, would not be justified. The Grand Trunk management was reminded that the Grand Trunk Pacific had not assumed or attempted to discharge its rental obligations to the Government of Canada with respect to the National Transcontinental Railway, which obligations, while not formally assumed by the Government, had in practice been shouldered by the Dominion. The Government insisted that the obligations of the Grand Trunk Company to the Grand Trunk Pacific could not be ignored, and that the Government could not undertake to assume the indebtedness and to operate the Grand Trunk Pacific and branch lines thereof and to relieve the Grand Trunk Pacific of responsibility therefor while the Grand Trunk Railway,

as a subsidiary of which, and indeed as an extension of which the Grand Trunk Pacific was built, remained in independent hands. The Government overtures (which are printed in Sessional Papers No. 90, 1919) were at this time of the nature of rental over a long period of years, with a provision for purchase, but no agreement could be reached as regards compensation. Meanwhile the Grand Trunk was having difficulty in financing and requested the Government to guarantee a proposed note issue and thus enable the company to meet obligations maturing in the fall of 1918. The Government replied (September 10) that it had not power to guarantee the proposed note issue without authority of Parliament, and it did not consider it practicable to ask Parliament for such authority. The offer already made had been based on the Drayton-Ackworth report, beyond which Council could not go, and if no further offer was received from the Grand Trunk before the end of the month (September, 1918) they would consider negotiations at an end. The reply of the company was to the effect that it had waited as long as seemed prudent and had succeeded in underwriting the note issue at a slightly better price than their last issue.

PROPOSAL BY GRAND TRUNK

There were no further negotiations until February 18, 1919, when President Kelley called from London a proposal that the Government should take over the Grand Trunk Pacific and branch lines, repaying to the Grand Trunk all indebtedness, and that the Grand Trunk should enter into a traffic agreement with the Government by which the Grand Trunk should become the eastern connection of the Canadian Government Railways and the Canadian Government Railways should become the western connection of the Grand Trunk, interchanging at North Bay. The proposal involved the operation by the Grand Trunk of the eastern lines of the Canadian Northern Railway, also the spending upon Grand Trunk improvements of the money owing by the Grand Trunk Pacific which the Government should repay to the Grand Trunk. The Government replied briefly that the proposal could not be entertained.

DEFAULT IN RESPECT OF GRAND TRUNK PACIFIC

At this time there remained a balance of approximately $950,000 of the vote of $7,500,000 appropriated by Parliament at the session of 1918. The company wished to use this to pay interest on Grand Trunk Pacific debenture stock, but the Government held that deficit in operation should have priority over all other charges and made the condition that the remittance should be used only for operating obligations. As a result the company notified the Government that it would be unable to meet interest due upon its securities on March 1.

The reply of Sir Thomas White, Minister of Finance and Acting Prime Minister, dated February 28, contained the following significant statement:—

> "I have already informed Mr. Kelley, president of the company, and yourself (Mr. Frank Scott) that it is not the intention of the Government to ask Parliament to provide a further vote for the Grand Trunk Pacific Railway Company while our negotiations with the Grand Trunk Railway Company remain in their present unsatisfactory condition. As I indicated to you, it will be for the Board of Directors of the Grand Trunk Railway Company to determine the question of their responsibility in respect of the interest maturing to-morrow upon securities guaranteed by their company."

Five days later (March 4) the company, without previous intimation or discussion from either Montreal or London, forced the situation by notifying the Government that it would be unable to continue operation of the Grand Trunk Pacific after March 10.

SESSIONAL PAPER No. 20

MINISTER OF RAILWAYS APPOINTED RECEIVER OF GRAND TRUNK FACIFIC

The Government determined that there should be no interruption of this very necessary railway service at a time when the country was struggling to recuperate after the shock of war and on March 7, under the War Measures Act, passed an Order in Council appointing the Minister of Railways receiver of the Grand Trunk Pacific Railway System. The Government receivership became effective at 12 midnight of Sunday, March 9, and on the Government now fell the responsibility of operating the entire transcontinental system conceived by the Grand Trunk in 1903-4.

FURTHER PROPOSAL BY GRAND TRUNK

After President Kelley's return from London he submitted (May 28, 1919) a further offer to the Government which challenged the accuracy of the Drayton-Aekworth report (which had formed the basis of the Government's previous offer). In reply, the Government suggested that Sir Henry Drayton, then chairman of the Dominion Railway Board, should be permitted to investigate the question of the alleged inaccuracy and report thereon, when the Government would be in a position to reply to the company's formal offer. Nothing came of this suggestion, but in August, 1919, Sir Alfred Smithers came to Ottawa, and, with Mr. Kelley, personally resumed negotiations with the Government. For the information of the sub-committee of Privy Council appointed to deal with the matter, Mr. Kelley presented the following summary of the various proposals which had already passed:—

> "In January, 1918, the Prime Minister cabled to the High Commissioner in London, requesting that the latter ask the chairman of the board of the Grand Trunk Railway to state on what terms the Grand Trunk and Grand Trunk Pacific could be acquired by the Government of Canada, on the basis of an annual sum to be paid by the Government and to be distributed by the Directors, among the holders of the four per cent guaranteed and other stocks.
>
> "The following reply, stating the terms on which the Board were prepared to recommend the sale of the property, was cabled:—
>
> > The Government to take over all obligations of the Grand Trunk Company, including the fixed charges and debenture stocks, and to pay an annual sum in addition as from January 1, 1917, of £1,084,000. This sum would pay the dividends on the guaranteed and preference stocks. The Government, in addition, to pay annually one per cent (1%) on the Ordinary Stock from January 1, 1920, a further one per cent (1%) from January 1, 1925, and a final additional one-half per cent (½%) from January 1, 1930.
>
> "This offer was not accepted, and on the 7th March, 1918, the chairman received a message, through the High Commissioner in London, offering the following terms on behalf of the Canadian Government:—
>
> "*First.*—Government will take over Grand Trunk and Grand Trunk Pacific and acquire all their assets.
>
> "*Second.*—Government will relieve the Grand Trunk Company from its liabilities in respect to the Grand Trunk Pacific and from its obligations to operate the National Transcontinental.
>
> "*Third.*—The Government will also assume other liabilities and obligations of both companies.
>
> "*Fourth.*—The Government will make an annual payment to the Grand Trunk Company of $2,500,000 (£500,000) for first three years, $3,000,000 (£600,000) for succeeding five years, and $3,600,000 (£740,000) there-

after. These sums would be distributed by the Grand Trunk management as they may determine among holders of four per cent guaranteed and other stocks.

"*Fifth.*—The acquisition of the assets of the Grand Trunk might be carried out by long-term lease, renewable perpetually with rental corresponding to the annual payments above mentioned.

"*Sixth.*—If the Grand Trunk Company declines to accept the offer above set forth, we are prepared to leave the amount of annual payment to arbitration."

"Negotiations were resumed in London upon the arrival of the Prime Minister and other Ministers in June, 1918, but after various meetings and conversations, it was intimated to the board that no alteration—with the exception of the one to be immediately mentioned—could be made in the Government's original offer without the consent of the full Cabinet at Ottawa.

"The alteration referred to was that the Government offered, in the event of arbitration, to include the guaranteed stock in the fixed charges, leaving only to arbitration what sums should be allowed by the Government to be divided among the shareholders ranking after the guaranteed stock. This offer was contained in a letter from the Hon. Mr. Meighen, dated July 11, 1918, and was not accepted by the board.

"After a meeting between the Prime Minister and two of his colleagues and a committee of the board, prior to the departure of the former from London, the chairman, in a letter dated August 8, 1918, made the following proposition:—

That the Government should pay a net annual sum of £977,000 being the amount of net earnings for the year 1913, the last normal year before the war; and leave to arbitration what further sum the shareholders would be entitled to in respect of the prospective value of the undertaking that must arise from the development of the Dominion: or agreeing to take an annual payment of £1,163,000 without arbitration.

"A communication was received from Sir George Foster, then Acting Premier, on September 30, 1918, virtually declining this offer.

"Mr. Kelley, the president, left Canada for London on January 27, 1919, and on his arrival, after discussion with the board, he was authorized to cable the Acting Premier, Sir. Thomas White, offering to enter into a traffic arrangement with the Canadian Government Railways for points east of North Bay, whereby the Grand Trunk would act as the eastern connection of the Canadian Government lines; and further offering to operate on behalf of the Government, if they so desired, all lines of the Canadian Northern Railway lying east of North Bay. This offer was declined by the Acting Premier.

"After Mr. Kelley's return from London, he submitted a further offer to the Government, as follows:—

'The railway company to lease to the Government all of the properties and assets of the Grand Trunk, for the consideration that the Government will assume all obligations and fixed charges in accordance with previous cables between the chairman and the Prime Minister, and pay to the company amounts as follows:—

For each of years 1918 and 1919	$3,076,868
For the year 1920, sum of	3,380,616
For each of years 1921 to 1924, inclusive, sum of	4,326,615
For the year 1925 and thereafter in perpetuity, annual sum of	5,268,240' "

ACQUISITION OF GRAND TRUNK AUTHORIZED

The conferences between Sir Alfred Smithers, Mr. Kelley, and the members of the Cabinet conducting the negotiations for the Government, continued until early October, when, on the 9th of that month, the proposals were reduced to writing and formed the basis of chapter 17 of the 2nd Session of 1919, "An Act respecting the acquisition by His Majesty of the Grand Trunk Railway System," assented to November 10.

The Bill provided for the sale and purchase of certain stocks, the value of which was to be determined by arbitration. On these stocks the Government agreed to pay a certain dividend and interest provided the voting powers exercisable by the shareholders should cease on the provision of the guarantees. The guarantees were to take effect on the appointment of a committee of management representative of both the company and the Government. The Committee of Management was to be appointed as soon as the agreement between the Government and the company was ratified by a majority of the shareholders.

The Grand Trunk shareholders at a meeting in London, on February 19, 1920, ratified the agreement, but owing to an omission in the list of properties being acquired, as set out in the schedule of chapter 17, 1919, amending and confirmatory legislation was required, and this was provided in chapter 13, of 1920, assented to on May 11. The schedule of this Act contained the agreement in its final form, which was to the following effect:—

"An agreement made the eighth day of March, one thousand nine hundred and twenty, between His Majesty the King, represented by the Minister of Railways and Canals of Canada, acting under the authority of an Order in Council, dated the thirty-first day of December, 1919, hereinafter called the "Government" of the First Part, and the Grand Trunk Railway Company of Canada, herein represented by Sir Alfred Waldron Smithers, M.P., Chairman of the Board of Directors, and Henry Hilton Norman, Secretary of the Company, acting by virtue of a Resolution duly passed at a meeting of the shareholders and debenture stockholders duly called and held at London, England, on the nineteenth day of February, 1920, hereinafter called the "Grand Trunk," of the Second Part.

"Whereas, by an Act of Parliament of Canada, entitled "The Grand Trunk Railway Acquisition Act, 1919," (hereinafter called the said Act), the parties hereto were authorized to enter into an agreement for the acquisition by the Government, on the terms therein stated, of the entire capital stock of the Grand Trunk except the four per cent guaranteed stock of the Grand Trunk amounting to £12,500,000, the latter being in the said Act and hereinafter called the "present guaranteed stock";

"And whereas the issued capital stock of the Grand Trunk (not including the present guaranteed stock) consists of the following:—

First preference stock, five per cent	£ 3,420,000
Second preference stock, five per cent	2,530,000
Third preference stock, four per cent	7,168,055
Ordinary or common stock	23,955,437
	£37,073,492

which are hereinafter together referred to as the "preference and common stock";

"And whereas the present outstanding debenture stocks of the Grand Trunk, consisting of—

Five per cent Grand Trunk debenture stocks..	£ 4,270,375
Five per cent Great Western debenture stocks..	2,723,080
Four per cent Grand Trunk debenture stocks..	24,624,455
Four per cent Northern debenture stocks..	308,215
	£31,926,125

hereinafter called the "present debenture stocks," are entitled to certain voting powers at metings of shareholders of the Grand Trunk;

"Witnesseth: that the parties hereto have agreed as follows:—

"1. *Statement of Control.*—The Grand Trunk represents that the companies, properties and interests comprised in the Grand Trunk Railway System are correctly and fully set forth in the First schedule to this agreement, and that it has in such schedule correctly and fully shown how the various companies and their undertakings are controlled by the Grand Trunk, whether by stock ownership and to what extent, and whether by leases, agreements or otherwise, distinguishing in these respects the direct ownership and control by the Grand Trunk from the indirect ownership and control through companies included in the system.

"2. *Sale and Purchase of Certain Stocks.*—The Grand Trunk hereby undertakes and agrees to use its best endeavours to cause the sale and delivery to the Government, and the Government agrees to acquire, in the manner and on the terms hereinafter set forth, the preference and common stock of the Grand Trunk now issued and outstanding to the face value mentioned in the recitals to this agreement.

"3. *Part Consideration.*—Cessation of Voting Powers.—As part of the consideration for such acquisition, the Government agrees to guarantee the payment of—

(*a*) Dividends payable half-yearly, at four per cent per annum, upon the present guaranteed stock;

(*b*) The interest upon the present debenture stocks as and when payable, in accordance with the terms thereof;

these guarantees to take effect upon the date of the appointment of the Committee of Management hereinafter mentioned, The guarantees shall be in the form, or substantially in the form, set forth in the Second and Third schedules, respectively, to this agreement, shall be signed by the Minister of Finance and Receiver General of Canada on behalf of His Majesty the King in the right of the Dominion of Canada, and, forthwith after the appointment of the Committee of Management hereinafter referred to, shall be deposited with the High Commissioner for Canada in London, England, for the benefit and information of all parties concerned.

"Provided that concurrently with the deposit of such guarantees, the voting powers at meetings of shareholders of the Grand Trunk now vested in or exercisable by the holders of the present guaranteed stock and the present debenture stocks, respectively, shall cease and determine absolutely.

"4. *Committee of Management.*—Forthwith after the ratification of this agreement, as provided in the said Act, a Committee of Management of the Grand Trunk System shall be formed, consisting of five persons, two to be

appointed by the Grand Trunk, two by the Government, and the fifth by the four so appointed. The functions of the Managing Committee shall be to insure the operation of the Grand Trunk System (insofar as it is possible to do so) in harmony with the Canadian National Railways, the two systems being treated, in the public interest, as nearly as possible as one system. No contract or agreement shall be made by the Grand Trunk, or by any company comprised in the Grand Trunk System and controlled by the Grand Trunk, other than such as are necessary for the usual and ordinary business of the system, except with the concurrence of the Managing Committee and the approval of the Governor in Council. The Managing Committee may, with the consent of the Governor in Council, borrow from the Government on Grand Trunk notes, or other obligations or securities approved of by the Governor in Council, for the carrying on of the operation or improvement of the Grand Trunk System. The Committee shall continue to act until the preference and common stocks are transferred to or vested in the Government, when it shall be discharged.

"5. *Examination of Books and Properties.*—The books, minutes, reports, documents, and other records, and all the railways and properties of the companies comprised in the Grand Trunk System, shall at all times be accessible and open to inspection and examination by any person or persons named by the Minister of Railways and Canals of Canada, or by the Board of Arbitrators hereinafter mentioned; and all proper aid and assistance shall, on request, be rendered to such person or persons by the Committee of Management and by the officers and employees of the Grand Trunk and its allied companies, including the making and giving of extracts, copies and statements.

"6. *Submission to Arbitration.*—The value, if any, to the holders thereof, of the preference and common stock shall be determined by a Board of three arbitrators, one to be appointed by the Government, one by the Grand Trunk, and the third shall be Sir Walter Cassels, Judge of the Exchequer Court of Canada, who shall be chairman of the board. Should Sir Walter Cassels die or be unable to act, the said parties shall agree upon another third arbitrator who shall be either the then judge of the Exchequer Court of Canada, or one of the judges of the Supreme Court of Canada, and who shall likewise be chairman. Should any vacancy occur in the Board of Arbitrators, other than the third arbitrator, the arbitrator to fill the vacancy shall be appointed in the same way as the arbitrator whose seat has become vacant was appointed.

"7. *Arbitration Proceedings.*—The Board of Arbitrators shall have full power and authority in respect of the control of the arbitration and the proceedings thereof including the administration of oaths and in respect of the admission of evidence. The board shall have power to employ or procure such legal, engineering, actuarial or other assistance and such evidence as it may require. Should the arbitrators require that the evidence of any person be taken de bene esse, or out of Canada, the arbitrators may delegate to any person power to administer oaths, to take such evidence under oath or otherwise, and to transmit it to the arbitrators for use upon the arbitration. The evidence upon the arbitration shall be taken in shorthand and transcribed by competent stenographers appointed by the arbitrators and duly sworn.

"8. *Making of Award and Appeals.*—The award shall be made by the arbitrators, or a majority of them, within nine months from the appointment of the arbitrators, or within such further time as the Governor in Council may approve. The unanimous award of the arbitrators shall be final, but should the award not be unanimous, and should notice of appeal be given

by either party to the other within thirty days after the making of the award, an appeal therefrom, upon any question of law, shall lie to the Supreme Court of Canada and or to the Judicial Committee of the Privy Council, if leave be granted by the said committee.

"9. *Clerical Errors.*—The arbitrators shall have the power to correct in their award any clerical errors or mistakes at any time within two weeks after delivery thereof.

"10. *Undisclosed liabilities.*—Should the Government, within three months after the making of the award, claim that there existed any liabilities of the Grand Trunk, or of any company comprised in the Grand Trunk System, which were not disclosed to the Board of Arbitrators prior to the making of their award, the Government may, within such period of three months, apply to the Board of Arbitrators to amend their award, and the board may thereupon decide whether such liabilities existed and were disclosed to them, whether the amount of their award would or would not have been affected thereby, and the amount of the deduction, if any, to be made in respect thereof; and may amend their award accordingly.

"11. *Limit to the Amount of the Award.*—The value, if any, so determined shall not be greater than an amount on which the annual dividend at four per cent per annum on the aggregate face value of the present guaranteed stock and the new guaranteed stock taken together would be $5,000,000; that is, the value, if any, so determined shall not exceed sixty-four million one hundred and sixty-six thousand six hundred and sixty-six dollars and sixty-six cents ($64,166,666.66). The fixing of this limit shall not be taken by the arbitrators as any admission or indication that the value to be determined is the amount so fixed, or any other amount.

"12. *Issue of new Guaranteed Stock.*—Upon the value of the preference and common stock being finally determined under the provisions of this agreement, the Grand Trunk shall create an issue of non-voting four per cent capital stock—herein called the "new guaranteed stock." The amount thereof shall be the amount of the value, if any, of the preference and common stock, determined as above provided, less such deductions therefrom as are to be made under the terms of this agreement. The Government shall guarantee to the holders of the new guaranteed stock that there shall be paid a dividend thereon at the rate of four per cent per annum, payable half-yearly, from the date of the appointment of the Committee of Management hereinbefore mentioned. The new guaranteed stock shall be distributed among the holders of the preference and common stock, upon the transfer to or vesting in the Government of such stock, in proportions which shall be determined by the arbitrators. The new guaranteed stock shall be deemed and issued as fully paid stock and free from calls and other liabilities. The new guaranteed stock shall be in the form, or substantially in the form, set forth in the Fourth schedule to this agreement, and the guarantee of the Government in respect thereof shall be signed and deposited in the same manner as is provided in this agreement with respect to the guarantee of the present guaranteed stock. A copy of the guarantee in this clause provided for shall be endorsed or printed upon the certificates of new guaranteed stock as from time to time issued.

"13. *Transfer of Preference and Common Stocks.*—The new guaranteed stock shall be issued in exchange for the preference and common stock upon the transfer to or vesting in the Government, or its nominees, of such preference

and common stock as aforementioned. Should any shares or any part of the preference and common stock not be transferred to the Government, the Governor in Council may declare such shares or any such part of the preference and common stock to be the property of the Minister of Finance in trust for His Majesty, and upon the making of such declaration the shares or part thereof not so transferred shall immediately become the property of His Majesty, and proper entries thereof in the stock registers and other books in that behalf shall be made. The amount of the new guaranteed stock to which the holders of any such shares or part thereof so vested in His Majesty would be entitled to under the terms of this agreement shall be issued and delivered to such holders, or their representatives, upon proper application being made therefor to the Government and the surrender or delivery of such shares to the Government or its nominees, or proper evidence of the applicants' right thereto should such certificates be lost or destroyed.

"14. *Redemption of Stocks.*—The present guaranteed stock and the new guaranteed stock, or any part thereof, may be called in or redeemed by the Government or the Grand Trunk, at par, at any time after five years from the date of the appointment of the said Committee of Management, on six months' notice, by advertisement, to the holders thereof.

"15. *Vacating of Offices.*—Upon the preference and common stock being vested in the Government, or its nominees, the Grand Trunk shall cause its Board of Directors, and the Board of Directors of each company comprised in the Grand Trunk System, to resign or vacate their offices, as directors, at such time or times and in such manner as may be requested by the Government, and nominees of the Government shall be duly appointed to the vacancies caused thereby. Should any director of the Grand Trunk, or of any company comprised in the Grand Trunk System, which is within the legislative authority of the Parliament of Canada, neglect to resign or vacate his office in accordance with such request, the Governor in Council may declare the office of any such director to be vacant, on and after a date to be named in such order, and may appoint a director in his stead.

"16. *Varying Obligations.*—After the execution of this agreement, and until the preference and common stock is vested in the Government, the Grand Trunk shall refrain, without the approval of the Governor in Council from varying by by-law, agreement, or in any other manner whatsoever, the rights or liabilities appertaining to the capital stocks or securities of the Grand Trunk, or of any company comprised in the Grand Trunk System, and from increasing, without such approval, except in so far as is necessary in the usual and ordinary conduct of the business of the system, or as may be concurred in by the Committee of Management and by the Governor in Council, the obligations or liabilities of the Grand Trunk or of any company comprised in the Grand Trunk System. The Grand Trunk shall also refrain, without such approval, from declaring any dividends on any of the capital stocks.

"17. *Superannuation and Pension Funds.*—The Grand Trunk Superannuation Fund shall continue in existence and shall continue to be administered as at present, and in accordance with the rules and regulations governing the same. The rules and regulations of the Grand Trunk pension system shall continue to be applicable to employees of the Grand Trunk System until a general pension scheme applicable to all employees of Canadian Government-owned or controlled railways shall be adopted and become effective. The rules and regulations of the Grand Trunk Insurance and Provident Society

shall continue to be applicable unless and until the Government shall adopt and make effective a general insurance scheme applicable to all employees of Canadian Government-owned or controlled railways. In no case shall any acquired rights or vested interests in either the pension system or the Insurance and Provident Society be affected.

"18. *Grand Trunk Pacific.*—The Minister of Railways and Canals, as receiver of the Grand Trunk Pacific Railway System, may entrust to the Committee of Management, hereinbefore provided for, on terms to be approved by the Governor in Council, the exercise of such of his powers as receiver as the Governor in Council may deem requisite, in order that the operation and management of the said Grand Trunk Pacific Railway System may be conducted in harmony with the operation of other railways and properties under the control of the said committee; and upon the transfer to or vesting in the Government of the preference and common stock as herein provided for, the Governor in Council may, on such terms and conditions as may be deemed necessary in the public interest, order the discharge of the receivership of the Grand Trunk Pacific Railway System, and the termination and withdrawal of the proceedings in the Exchequer Court of Canada relating thereto.

"19. *Grand Trunk Pacific Guarantee and Claims.*—For the purpose of the valuation provided in this agreement, the obligations of the Grand Trunk as guarantors of any indebtedness of the Grand Trunk Pacific Railway Company, or of the Grand Trunk Pacific Branch Lines Company, or otherwise, and the claims of the Government of the Dominion of Canada, against either of the above-mentioned companies, or against any company forming part of the Grand Trunk Railway System, shall not be treated as extinguished or affected by anything contained in the said Act.

"20. If the arbitrators consider that the market prices or quotations of the stocks are to be taken into consideration in establishing their value, they shall not take into account the fluctuation, if any, in the market prices or quotations of the said preference and common stock caused by the negotiations between the parties hereto, the passing of the said Act, or the execution of this agreement. This shall not be taken to mean that the market prices or quotations are relevant matter to be inquired into by the arbitrators.

"21. *Costs.*—Each of the parties to this agreement shall pay its own costs of and in connection with the arbitration subsequent to the date of this agreement, including the remuneration of the arbitrator appointed by it. The remuneration of the third arbitrator, of the secretary of the arbitration board, secretarial, clerical, reporting, travelling and other necessary expenses which may be considered as in the common interests of both parties, shall be equally borne by each party. In order to provide the necessary funds to pay its expenses and its share of the common expenses, the directors of the Grand Trunk shall be entitled to create a fund by means of assessments on the present debenture stocks and present guaranteed stock in such proportions as the directors in their discretion may determine, which shall be deducted from any payments on said debenture and present guaranteed stocks as may be necessary.

"Should any difference arise as to what is included in the expression 'common interests of both parties,' as used in this clause, such difference shall be settled by the Board of Arbitrators on the application of either party."

COMMITTEE OF MANAGEMENT APPOINTED

The Committee of Management, whose functions were to co-ordinate as far as possible the operation of the Grand Trunk and Canadian National lines, pending the award of the arbitrators and the transfer of the property, was appointed on May 21, 1920. It consisted of Messrs. Frank Scott and W. D. Robb, representing the Grand Trunk, and Messrs. C. A. Hayes and S. J. Hungerford, representing the Canadian National lines. These four selected Mr. Howard G. Kelley, President of the Grand Trunk, as the fifth member of the committee.

THE BOARD OF ARBITRATION

Sir Walter Cassels, Judge of the Exchequer Court of Canada, was by legislation and agreement, appointed chairman of the proposed Board of Arbitration. The agreement provided (paragraph 8) that the award should be made within nine months from the appointment of the arbitrators, or within such further time as the Governor in Council should approve. The Grand Trunk, by resolution adopted June 18, 1920, appointed Hon. William Howard Taft to the Board, and before July 9, the president of the Grand Trunk informed the Minister of Railways and Canals that Mr. Taft had been appointed arbitrator by the Grand Trunk. The Government thereupon appointed Sir Thomas White arbitrator on July 9. Under the agreement, therefore, the award of the arbitrators was required to be made by April 9, 1921. On the making of the award and the transfer of the stock, it was agreed that the Grand Trunk directors should resign as might be requested by the Government, and that nominees of the Government should be appointed to the vacancies thus caused.

The arbitrators held their organization meeting at Montreal on September 1, when arrangements were made by Government counsel for the opening of the case about November 1. Meanwhile, a physical inspection of the property was undertaken. On November 5, at a further meeting of the arbitrators, Grand Trunk counsel, without previous notice, requested postponement until February 1, 1921, as their case was not ready. Government counsel protested against the delay and on January 13, 1921, at a meeting held at Ottawa by direction of the Prime Minister, Grand Trunk counsel were informed by the Premier that they must not count on any extension beyond April 9.

Arbitration commenced on February 1, and, as feared, was not concluded when April 9 approached. In anticipation of this eventuality the Minister of Railways, for the Government, wrote Sir Alfred Smithers on February 7, formally reminding the company of the provisions of the agreement and pointing out that in the event of the award not being ready within the period agreed upon, it would be necessary for the Government to consider whether it would exercise its powers to extend the time, and if so, upon what terms or conditions. The system of joint management was stated by the Minister to be embarrassing, inconvenient and expensive, though justified as a temporary expedient and as providing for the possession which the company should have during the preparatory period of its case and, at the same time, by means of a committee of management, for such a measure of unification with the Government Railway System as might be possible. There appeared to be no reason for the continuation of this undesirable system of control beyond April 9, the day on or before which, as originally contemplated, it was to cease.

In inviting the consideration of the management, the minister stated that in view of the Government any provision for this emergency would be inadequate which did not authorize the discharge of the Committee of Management, and the vesting of the stock on or before April 9.

Sir Alfred Smithers, for the company, replied on February 25, urging an extension of three months' time. To ask the company to give up control before the case had been decided by the arbitrators appears to him to be unreasonable. The Minister of Railways replied by cable on March 19, regretting the impossibility of the Government extending the time as requested except upon terms of immediate transfer of management and control of railway. Further operation of the system by the company in conjunction with the Committee of Management was impracticable, especially when considered in connection with attendant deficits. Parliament was then in session and three months' delay in the completion of the case would be too late to secure requisite legislation during that season. The reply of the company (March 22) was to the effect that the request to hand over the railway before the award was so unreasonable that the Board of Directors could not recommend it, and as to the immediate transfer of stock, the stockholders would certainly not consent to transfer their holdings until the final award.

NO FURTHER ADVANCES WITHOUT POSSESSION AND CONTROL

Meanwhile, on March 21, the Minister of Railways addressed the following letter to President Kelly:—

> "With reference to the Grand Trunk Railway estimates, amounting to $89,687,633.39, dated February 22, submitted and signed by Mr. Frank Scott as vice-president, and which have been placed in the estimates now before Parliament, I wish to advise you that the Government of course cannot agree to, or assume any liabilities in connection with those estimates unless nor until they shall have received the approval of Parliament. Moreover, the Government have come to the conclusion to make no further advances on account of the Grand Trunk Railway except payments, if any, for which they are obliged by law, until we have some definite and satisfactory assurances as to when the road is to come into our possession. In the absence of a satisfactory arrangement of these questions, the Grand Trunk Railway must finance on its own responsibility from this time on."

Sir Alfred Smithers protested to the Prime Minister (March 29) that the agreement to purchase by the Government made further financing by the company impossible, and if default occurred in payment of obligations due April 1, it would be considered in London as default of the Canadian Government. Premier Meighen reminded Sir Alfred Smithers in reply (March 30) that the agreement provided for the Grand Trunk doing its own financing, but if, as the chairman asserted, the company could not do this then obviously he should no longer insist on possession and control. The demands of the company, since the arbitration agreement was signed, for financing, and particularly recent demands, had involved large amounts, and the Prime Minister reiterated that consideration of the company's application for extension and for further advances, except payments which the Government was by law obliged to make, must be conditional upon the Government obtaining possession and control.

Sir Alfred Smithers replied (April 1) that, while not relinquishing any legal rights, he had cabled Mr. Kelley to if possible transfer the management of the railway. But as to transferring stocks, no holders would voluntarily transfer until final award was given. He urged the Government to finance the various payments then due. The Prime Minister saw Mr. Kelley, who stated (April 1) that his instructions were not sufficiently definite to enable him to conclude necessary arrangements for transfer of management and possession. This was followed on April 2 by a cable from the chairman (Sir Alfred Smithers) to the effect that he had that morning received unanimous opinion of counsel that under the agreement they could not legally transfer

management under present circumstances. The Prime Minister replied (April 3) that the Government understood perfectly that the existing agreement did not authorize the directors to transfer their powers of management, and that further agreement was required to provide for that, subject to parliamentary sanction. If the board would authorize Mr. Kelley to execute the necessary terms evidencing company's consent, and to put the Government into immediate possession, bill to confirm would be introduced immediately. Only upon these conditions would the Government extend time or make further advances.

On April 6, the company replied, over the joint signatures of Mr. Kelley and F. H. Phippen, denying absolutely any delay on its part either in the preparation or presentation of its case before the arbitrators, and holding it was the obvious duty of the Government to grant the necessary extension of time without seeking to alter the terms of the contract. They claimed that under the circumstances, there was no alternative but that the Government should grant the necessary time and, as the agreement with the Government limited the powers of the company to finance its requirements, the Government should protect the company in that regard.

In acknowledging this letter, the Prime Minister stated that the position of the Government in relation to the matters referred to was sufficiently set out in the antecedent correspondence.

LAPSE OF ARBITRATION PROCEEDINGS

This was the position on April 9, the date set in the agreement for the conclusion of the arbitration, and as the company had not complied with the conditions contingent upon an extension of time, the arbitration proceedings ceased and the powers of the arbitrators lapsed on that date.

The next move was the introduction of a Bill, on April 19, by the Prime Minister, intituled "An Act respecting the Grand Trunk Arbitration." By that measure (chapter 9, 1921) the Government asked Parliament to support the stand taken by the administration. The Government felt the shareholders should not be finally denied the reconstitution of the Arbitration Board until an opportunity was given to meet the conditions required. The Bill would give the shareholders that opportunity and give sufficient time to enable them to meet and decide. It seemed to be a case, not for further negotiation with the company, but for a square and final statement of what must be done, with reasonable opportunity to accept or reject. That was the purport of the Bill, which received its third reading on April 25, and became law on receiving the assent of the Governor General on May 3.

Mention has already been made of the Government assistance rendered the Grand Trunk Pacific up to and including the session of 1918, when negotiations were set in motion looking to the acquisition of the Grand Trunk. The Prime Minister, in his speech introducing the Bill above referred to, brought that statement up to date. Since the Government had been compelled to provide for the operation of the Grand Trunk Pacific in March, 1919, it had had to advance to the receiver some $26,607,000 for the purposes of operation and fixed charges. For the Grand Trunk itself the Government had, since the summer of 1919, advanced various sums in order to keep the system intact and enable it to continue. Those sums aggregated in all approximately $47,000,000. The great part of that had been advanced since the execution of the agreement for the acquisition of the Grand Trunk Railway. It was a fact that the total advanced by way of assistance to the Grand Trunk and Grand Trunk Pacific Companies, inclusive of interest unpaid, amounted, in the case of the Grand Trunk, to $77,297,000, of which all but $15,000,000 was due, and in the case of the Grand Trunk Pacific, to $62,400,000, of which the entire amount was due. The Government had, in this connection, guaranteed obligations of the Grand Trunk

to the extent of $25,000,000. "It is," added the Prime Minister, "very difficult to argue in the face of this recital, that the Government of Canada has at any time dealt harshly with Grand Trunk shareholders or Grand Trunk enterprises."

REVIVAL OF ARBITRATION AND APPOINTMENT OF CANADIAN DIRECTORS

A draft agreement proposed by the Government, and based on the legislation of May 3rd was considered at a meeting of the Grand Trunk shareholders in London on May 12 when necessary authority was given to the directors to execute it. By Order in Council of May 11, the Canadian High Commissioner for Canada in the United Kingdom was authorized to sign on behalf of the Canadian Government and the agreement was executed and exchanged in London on May 13.

The Act provided for the reviving of the arbitration proceedings if the agreement were executed on or before May 16. The agreement provided for the resignation of the Grand Trunk directors, the substitution of a Canadian board and the establishment of the head office in Canada. It provided also for the appointment of a Grand Trunk shareholders' committee to act for the shareholders in the matter of the arbitration proceedings.

The Grand Trunk directors resigned on May 26, and the following were thereafter nominated by the Government and appointed directors: Sir Joseph Flavelle, Bart., Toronto; Howard G. Kelley, Montreal; A. J. Mitchell, Toronto; E. L. Newcombe, K.C., Ottawa; J. N. Dupuis, Montreal. Following this, an Order in Council was passed on May 30, extending for three months the time within which all arbitrators might make their award. On June 11, the Government, by Order in Council, approved and ratified the agreement which had been executed on its behalf by the Canadian High Commissioner on May 13.

The arbitration proceedings were revived on June 1 and the presentation of the case for the Government commenced on the afternoon of June 7. The hearings finally concluded on July 8, and the arbitrators made their award at Ottawa, on the seventh day of September. This, and the reasons therefore, are set out in the following pages:—

SESSIONAL PAPER No. 20

GRAND TRUNK ARBITRATION

IN THE MATTER OF THE ARBITRATION

BETWEEN

HIS MAJESTY THE KING in right of the Dominion of Canada hereinafter called the "Government"

Of the First Part;

AND

IN THE MATTER of the GRAND TRUNK RAILWAY COMPANY OF CANADA, hereinafter called the "Grand Trunk"

Of the Second Part.

BEFORE

The Honourable Sir WALTER CASSELS,
Chairman.

The Rt. Honourable Sir THOMAS WHITE, K.C.M.G., P.C.

The Honourable WILLIAM HOWARD TAFT.
Arbitrators.

OTTAWA, the seventh day of September, A.D. 1921.

AWARD

WHEREAS by 10 George V, Chapter 17, assented to on the 10th day of November, A.D. 1919, the Government was empowered to enter into an agreement with the Grand Trunk and with such other companies and interests as the Government might think necessary, for the acquisition by it of the entire capital stock of the Grand Trunk, except the four per cent Guaranteed Stock of the Grand Trunk, amounting to £12,500,000, upon the terms and conditions in said Act, provided for and enacted;

AND WHEREAS, by said Act it was, *inter alia*, provided that the value, if any, of the said stock of the said Grand Trunk so to be acquired as aforesaid should be determined by a Board of three arbitrators, one to be appointed by the Government, one by the Grand Trunk, and the third to be Sir Walter Cassels, President of the Exchequer Court of Canada;

AND WHEREAS, pursuant to the powers and authority given and conferred by the Act aforesaid, the Government entered into an agreement with the Grand Trunk bearing date the 8th day of March, A.D. 1920, whereby *inter alia* it was agreed by and between the parties hereto, that the Grand Trunk acting as aforesaid would use its

best endeavours to cause the sale and delivery to the Government, and the Government agreed to acquire the preference and common stock of the said Grand Trunk, the whole in the manner and on the terms and conditions set forth in said agreement;

And Whereas it was further agreed in and by said agreement, that the value, if any, to the holders thereof, of the said stock, should be determined by a Board of Arbitrators as hereinabove stated, and that the said Sir Walter Cassels should be Chairman thereof;

And Whereas the said agreement was duly ratified by the shareholders of the Grand Trunk, and was approved and confirmed, with some corrections as to the schedules, by 10-11 George V, Chapter 13;

And Whereas, pursuant to the first mentioned Act and the said agreement, the Government then duly named and appointed the Rt. Honourable Sir Thomas White, K.C.M.G., K.C., as its Arbitrator on the Board of Arbitration aforesaid, and the Grand Trunk also named and appointed its Arbitrator on the said Board, namely, the Honourable William Howard Taft;

And Whereas both the said Right Honourable Sir Thomas White and the Honourable William Howard Taft accepted the said office, and they together with the Chairman, Sir Walter Cassels, acted as such Arbitrators, forming the Board of Arbitration aforesaid;

And Whereas, after due notice to the parties the said Board so constituted as aforesaid, met in Ottawa, and after hearing counsel, adjourned to hear evidence to the Board Room of the Grand Trunk in the City of Montreal, where on the first day of February, A.D. 1921, in presence of counsel for all parties, the hearing was resumed before the full Board;

And Whereas by the agreement aforesaid, duly ratified in all respects, by said 10-11 George V, Chapter 13, it was further agreed and enacted that the award of the arbitrators, or a majority of them, should be made within nine months from the appointment of the arbitrators, or within such further time as the Governor in Council might approve;

And Whereas when said delay of nine months expired, the Grand Trunk had not concluded the presentation of its case, and in consequence no award had been made, the Board deciding they had no power to continue, adjourned *sine die;*

And Whereas by 11-12 George V, Chapter 9, assented to on the 31st day of May, 1921, it was enacted that the Governor in Council, upon the Grand Trunk agreeing to further terms and conditions therein stated, might approve of a further time within which the arbitrators, or a majority of them might make their award, the Government and the Grand Trunk being respectively thereby authorized to agree for reviving and continuing the said arbitration, provided the agreement on the terms aforesaid were made on or before the 16th day of May, 1921, which said agreement was duly made and ratified, and an extension of the time duly approved;

And Whereas by said Act it was further provided that in the event of the approval of a further time for making the award under the Act, or of any agreement concluded in pursuance of the powers thereby conferred:—"The powers and duties of the arbitrators shall remain and continue; and be deemed to have remained and continued, and the proceedings shall be resumed and concluded in all respects as if the time within which the Award is actually made had been the time limited therefor by the said agreement of the 8th March, 1920."

AND WHEREAS, in pursuance of said authority, the Board resumed its sittings at the City of Montreal aforesaid, after due notice, and in presence of counsel for both parties;

AND WHEREAS, both parties on Friday the 24th day of June, 1921, having declared their evidence closed, Thursday, the 30th day of June, 1921, was fixed for hearing argument;

AND the whole Board having on the said day and succeeding days heard the argument of counsel for all parties, and having also jointly heard all evidence adduced on the matters submitted for arbitration, the Board then reserved its decision;

Now we, the undersigned arbitrators, a majority of the Board, after mature deliberation and after careful consideration of the evidence adduced,

DO ORDER, AWARD, ADJUDGE AND DETERMINE that there is no value, to the holders thereof, in the "First," "Second" or "Third Preference Stock," or in the "Ordinary or Common Stock" of the Grand Trunk.

AS WITNESS our hands this seventh day of September, A.D. 1921.

(Signed) W. G. P. CASSELS,
Chairman.

(Signed) T. WHITE.

For reasons stated in a memorandum filed this day I dissent,

(Signed) WM. H. TAFT.

Witness to signatures of all three arbitrators,

(Signed) ARNOLD W. DUCLOS.

REASONS FOR AWARD

(By the Chairman, Sir Walter Cassels)

The importance of the questions raised in this Arbitration and the large sum of money involved render it proper to give my views on some of the questions raised.

The Board sat for 71 days continuously, except for the break between 8th April and 1st June, and ceased taking the evidence and hearing the argumnt on the 8th July.

I propose before discussing the construction of the agreement to deal with the surrounding circumstances leading up to its execution, in order to arrive at the true construction of the agreement.—*Burstall vs. Baptist 14 A.C., p. 13.*

Before doing so there are two questions raised by Counsel for the Crown, which I had hoped might not be necessary to be dealt with, but which I feel must be carefully considered.

The first point raised by Counsel is that the accounts of the Grand Trunk Railway System have been so manipulated—I use a milder term than that used by Mr. Tilley—as to render the accounts as presented by the books unreliable and unsatisfactory.

The second point is that for reasons of his own—I will quote later his own reasons as stated by himself—dividends were paid when, to the knowledge of the Chairman, there were no earnings applicable to the payment of such dividends; and those moneys so paid were diverted from paying claims due to the Government, which should have been paid, leaving the Government claim unpaid to the present time.

The Stock Exchange was notified. I have never thought the stock market quotations of any value in arriving at the question to be solved by the Arbitrators, but if the arguments put forward by Counsel for the Grand Trunk Railway have any weight, then the dealings referred to would effectually destroy any value to be derived from such quotations.

As far back as January 20, 1914, a cable is sent to London which reads as follows:—

> "Preliminary figures for half year show $566,000 or say one and a half per cent earned on third preference. To produce this result have increased item of General Interest wherever possible. That item now shows $619,000 as compared with $323,000 last year. If you approve will transfer to Operating Expenses $290,000 same accounts as last year in order to improve comparison of general interest and operating expense account."

This was done. The cable proceeds:—

> "In case you wish to show two and a half per cent earned on third preference it will be necessary to reduce loss on Canada Atlantic by $154,000 and carry in Canada Atlantic suspense, bringing total of that account to $504,000."

It is alleged by Counsel and not denied that this also was done.

McLaren is Chief Auditor to the Grand Trunk Railway. In 1919, according to his sworn statement there was a deficit of $6,483,000. Instead of showing this deficit he shows a surplus of $5,556.

I asked him this question:—

> "Q. And that being a deficit, instead of showing a deficit of $6,483,000, you show a surplus of $5,556 and that is the same all the way through?"

His answer is:—

> "A. Exactly."

On December 10, 1915, Smithers wrote to Sir Robert Borden:—

> "I told my colleagues that at the interview I had with you on March 26th, I had disclosed to you frankly the situation with which the Grand Trunk Railway and the Grand Trunk Pacific Companies would be confronted in the near future. I also told them that after full consideration and with the deepest regret I had proposed to you as the only safe solution of our difficulties, that the Government should take over the Grand Trunk Pacific Railway as from the 1st January next, with all its branch lines, together with its Development Company and other subsidiary companies with all the assets; the Grand Trunk Railway Company to surrender to the Government the whole of the common stock of the Grand Trunk Pacific Railway Company on condition of the Government relieving the Grand Trunk Railway of all liabilities in respect of the Grand Trunk Pacific Railway Company, its branch lines, its Development Company, and other subsidiary companies, and repaying to the Grand Trunk Railway Company any money advanced by the Grand Trunk Railway Company to the Grand Trunk Pacific Railway Company or its branch lines and Development Company and other subsidiary companies.
>
> "In the course of conversation, as an alternative, you suggested that the Government might advance by way of loan sufficient money to supply any

deficiency in the amount required to meet the fixed charges of the G.T.P. Railway for the period of say five years anticipating that at the expiration of that period the net earnings would be sufficient for that purpose. I replied that under the present circumstances I did not think the Grand Trunk Railway Company would be justified in entering into any arrangement which would involve the accumulation of further liabilities against that company's revenues.

"I consider that any such arrangement involving such increased liabilities would so handicap the company's necessary powers of financing as to render it unable to fulfil the ever increasing demands of the public and public bodies; demands which could not possibly be met unless the credit of the Grand Trunk Railway was so maintained as to render possible the raising of fresh capital as required.

"My colleagues agree with the view I expressed to you and with the offer I made to you as expressed above, and which I now repeat with their concurrence. The liabilities of the Grand Trunk Pacific Railway Company will begin to accumulate as from the 1st January next as against net revenues, and any deficiency will have to be met by the Government and the Grand Trunk Railway Company. Under present circumstances, it is quite impossible for the Grand Trunk Railway Company to meet the extra liabilities arising from the Grand Trunk Pacific Railway Company.

"The amount of interest guaranteed by the Grand Trunk Railway Company is about $2,750,000 annually to which must be added the interest on the amount spent on branch lines over and above the amount for which bonds have been or will be guaranteed by the Provincial Governments."

After referring to other matters he proceeds:—

"We have done our utmost to meet the heavy financing which has been necessary, and the difficulty of which has been immensely increased by the disastrous war conditions.

"We are now at the end of our tether with regard to Grand Trunk Pacific financing. The first Grand Trunk Pacific payments for interest after the 1st January next will become due on the 1st March, and amount to just under $1,000,000 and there is no prospect of our being able to meet that payment."

The letter then concludes with regrets and so forth.

A series of cablegrams passing between Chamberlain and Smithers is produced. Chamberlain was then President of the Company.

January 28, 1917. Chamberlain to Smithers.

"Mr. Biggar thinks that unless Government waives its rights or gives consent, it would be improper if not illegal to pay dividends on the guaranteed stock or any preference stock without first making provision for payment of overdue interest on Government loans of 1909 and 1913 to the Grand Trunk Pacific, and also the guaranteed interest on Grand Trunk Pacific securities which rank ahead of the preferred stock. We were criticised by the Government for having paid last year on First Preference and if we were now to pay on First, Second and Third it would be impossible for us to get consent of Parliament for the increase we are asking."

Mr. Biggar, K.C., was at this time General Counsel for the Railway Company.

On the 1st February, 1917, Chairman Smithers to Chamberlain:—

"Referring to your cable January 28, my view is Grand Trunk Pacific is being worked on construction account until by Order in Council it is declared open and operated on revenue account. That date has been postponed by agreement with Government from year to year and the Government

advance money from time to time. Our last expected time for opening would be January 1, 1916, but in anticipation of inability to meet liability we entered into negotiations with Government as summed up in my letter of December 10, 1915, to Prime Minister. The reply was Government would appoint Commission to advise on railway situation, and to carry Grand Trunk Pacific over interval. Government lent $8,000,000 to provide 1916 interest in addition to other concessions mentioned in your letter May 3, especially Minister of Finance's statement he would forego interest on Government G.T.P. loans. Government thus waived its claim up to and including period covered by $8,000,000. I would use every means to postpone any announcement which would embarass your negotiations, but it appears to me legal position is net revenue results actually shown will have to be paid to preference shareholders in their order."

February 2, 1917, Chamberlain cables to Smithers:—

"Referring to your cable January 31, date of completion fixed by Parliament and not by Order in Council. Cap. 34 of Statute 1914 contains following:—

Notwithstanding anything contained in said Trust deed of 10th June, 1905, or any Act or Order in Council heretofore passed, the date for completion of Western Division shall be 31st day of December, 1915, and Government auditors insist upon accounts of company being kept on operating basis since that date.

"With regard to legal obligations to preferred stockholders, would call your attention to definition of net earnings set out in paragraph 18 of agreement of February 9, 1914, providing for amalgamation of Grand Trunk and Canada Atlantic, which amalgamation was confirmed by Act of Parliament, Chap. 89 of Statutes of Canada, 1914."

There could not be in the mind of any reasonable man a belief that net earnings mean anything but earnings after payment of interest on liabilities due.

9th of February, 1917, Smithers cabled Chamberlin:—

"Proposed to defer at all events publication of last year's revenue result until the Board meeting March 2nd. Please cable on receipt of my letter February 2nd preliminary figures before cabling statement to be submitted Board meeting. I am anxiously considering best course to pursue."

Cable is sent:—"Preliminary figures net amount available for dividends after charging up deficit on the D.G.H. and M. Railway and crediting surplus of G.T. Western Railway is £1,302,281.0s. 11d.

"Maintenance of Way expenses £909,214. 17s. 10d. against £1,002,729, 1s. 0d. in 1915.

"General Interest account credit of £234,615, 18s. 10d. against £95,870, 15s. 2d. in 1915.

"No charge made against Development Company for interest on advances in 1916 or against the Central Vermont Railway for advances for Southern New England road construction in same period."

McLaren's attention is called to the fact that his statement shows taken into Grand Trunk Railway of Canada £592,922, 17s. 0d. on account of interest on advance to the Development Company, and he explains;—

"It probably might have been placed in later." On February 20, 1917, Smithers cables Chamberlin:—

"Cable message received in regard to revenue results. Do you see any objection charging revenue with $1,000,000 for maintenance of way showing the amount in the balance sheet as permanent way renewal funds. Have you any other suggestion to make?"

Chamberlin to Smithers, 21st February, 1917:—

"There would be no objection to charging to maintenance of way but we need rolling stock more than anything else. Our rolling stock stands on books $55,000,000, and feel we should charge off two or three per cent annually for depreciation using same for renewals. Please cable which you will have it taken care of and amount."

February 22, 1917, Smithers cables Chamberlin:—

"Think Maintenance of way expenses should be increased $500,000 to approximate 1915 figures showing amount in balance sheet as renewal fund and that a further $600,000 be charged on account of rolling stock. Is there any objection to debiting general interest account with this $600,000 to equalize them? Will not amount mentioned in your letter of August 21st be eventually used for rolling stock renewals?"

"Cable 23rd February, 1917, to London:—

"Have increased maintenance of way expenses $500,000 and will reduce general interest by $600,000. Amount mentioned in letter of August 21st can be used for rolling stock renewals. State what date you require usual cable." Then follows cable, Chamberlin to Smithers, February 26, 1917, informing Smithers; "Drayton-Acworth Commission with us and hope for favourable report" but proceeds as follows:—

"This expectation, however, will be entirely destroyed if you should pay dividends on anything more than First Preference. In my opinion, if anything more than that is done you must give up all idea of further relief in connection with G.T.P. at least for the present. Would also be advisable if possible to avoid publishing final figures net earnings at least until June."

On February 26, 1917, Smithers to Chamberlin:—

"Propose to pay full dividend of Grand Trunk Second Preference stock, which after charging amounts mentioned in your cable message of February will leave balance of $280,000. The $600,000 mentioned in that cable message should be included in accounts due by company and not included in any renewal funds."

"The balance of $280,000 should be added to renewal funds and we must state in the dividend announcement that owing to the impossibility of obtaining necessary supplies and labour we have been unable to maintain as we should otherwise have done and the leeway will have to be made up at greatly increased prices and consequently we are carrying in the renewal funds about £400,000 which has been charged to working expenses. Please cable if you understand and your recommendations as to allocating the $280,000, stating amount of each fund as it would appear on the balance sheet. If this is clear will cable further to-morrow and you can cable full statement Wednesday."

McLaren explains in reference to the item of $600,000 that the accounts due by the company should be increased by $600,000.

On February 27, 1917, Smithers cables Chamberlin:—

"Position is one of much difficulty. Will postpone announcement this week. Think it impossible to postpone publication of accounts as suggested. In view of net profits shown end of November shareholders expect dividends on Grand Trunk Second Preference Stock, Grand Trunk Third Preference Stock, so we must disclose we are holding balance. As mentioned in my cable message of yesterday, if we do not pay dividends on Grand Trunk Second Preference Stock, and so increase balance it will increase shareholders' dissatisfaction *and render Board of Directors' position more difficult.* If we do, however, and—dividend on Grand Trunk Second Preference Stock to balance on account of renewals will not Government say we must reserve amount for

1917 Grand Trunk Pacific Railway payments? Think I could carry proposal mentioned in my cable message yesterday with shareholders satisfied and if the Government objected we should show 1917 increased prices would absorb amount held over. Suppose we pay dividends on Grand Trunk Second Preference stock, and the Government then think we can take on liabilities of Grand Trunk Pacific Railway would not their view alter when they see how working expenses are increasing as will be shown in the monthly revenue statements? Dividend on Grand Trunk Second Preference Stock is only £125,000 and the answer to the Government would be we have no option according to Grand Trunk Acts and it is doubtful if we may not be compelled to pay Grand Trunk Third Preference Stock. Government must realize last year was quite exceptional. Will be pleased to consider further suggestion Do not cable January working until results of last year published."

On February 27, 1917, cable from London:—

"In your last cable you set aside another $500,000 which makes this account $1,200,000 or £246,575 6s. 10d. This with the £280,000 now mentioned will give a total of £526,575 6s. 10d. instead of £400,000 as mentioned by you. Do you wish that only £400,000 should be shown as renewals, and the balance included in Preferred credit items, which is part of the accounts collectible?

"Would suggest that the renewal account covered by the £280,000 should be called "Engine and Car Renewal Account." So that it can be used for either engines or cars as necessary.

"Will include the $600,000 in our Preferred Credit Items, so that it will not show in the Balance Sheet."

February 28, 1917, Chamberlin to Smithers:—

"Think we could probably get away with dividends on First Preference, but am very much affraid if you declare dividend on Second, Government will call on us to pay Grand Trunk Pacific interest. If any comment should be made relative to balance carried over, we could say that it was held to protect us for heavy expenses entailed this half year by severe winter, and abnormal increase in price of coal and other materials, while if paid out in dividends it would leave us without any excuse."

February 28, 1917, Smithers to Chamberlin:—

"Leave in the accounts collectible the amounts of $500,000 and $200,000 for maintenance of way renewals mentioned in your cable message of yesterday and charge the further $500,000 for maintenance of way to working expenses, showing amount as special items in the balance sheet under head of maintenance of way renewal account. The £280,000 should be charged to working expenses and also shown in the balance sheet as special item under head of Engine and Car Renewal Accounts. Do not make these changes until we have agreed as to dividends on Grand Trunk Second Preference Stock in the light of my cable message of yesterday."

March 2, 1917, Smithers cables Chamberlin:—

"I have most anxiously thought of payment of dividends on Grand Trunk Second Preference Stock.

"I am certain non-payment after the showing to the end of November would create grave dissatisfaction among Grand Trunk shareholders and would doubtless result in agitation against Board of Directors and applications to the Courts. The relation of Board and shareholders here is quite different from what it is in America, *and one can suddenly drift into a very uncomfortable position.* If the Government complains we can urge the difficulty created by our special Acts of Parliament of Canada and that we did all possible by holding in suspense £400,000 when negotiations renewed. Our

monthly revenue statements will show this year, owing to heavy increase in working expenses, exceptional state of things last year. Hope you will be able to agree with me as to necessity of what I propose which Board approved after full consideration. Please cable."

9th March, 1917, Smithers to Chamberlin:—

"Referring to your cable of March 7th. Cannot understand Mr. Biggar's statement as to interest overdue to the Government on loans and guaranteed bonds. What amounts do you suggest are overdue and should be included in Grand Trunk accounts before the payment of dividends? How and when have they been formally demanded from the Grand Trunk Railway Company of Canada? In view of your letter of May 3rd cannot see how any amounts can be overdue. Cable particulars fully."

9th March, 1917, cable, Chamberlin to Smithers:—

"Your cable 9th. In July, 1915, the Government, by registered letter addressed to me as President of the Grand Trunk Pacific and as President of the Grand Trunk Railway Company of Canada, demanded payment of the sums of $200,000 and $300,000 respectively, being interest then due upon the $10,000,000 advanced by the Government in 1909 on account of the Prairie Section and the $15,000,000 advanced in 1913 on account of the Mountain Section. Payment of interest upon these advances was, as you know, guaranteed by Grand Trunk Railway Company of Canada. On 27th ultimo the Deputy Minister of Finance wrote Vice President and Treasurer Scott enclosing memorandum showing interest amounting to $2,300,000 due by the Grand Trunk Pacific on these advances and asking to be advised as to the possibility of these amounts being paid in the near future. To this, reply was sent that there was no immediate prospect of interest being remitted. *All estimates sent you have shown as separate items interest due Government on these advances.*"

10th March, 1917, Smithers cables Chamberlin:—

"Confidential and unofficial. Sent yesterday cable message after long sitting with Committee of Board. We agree best course is to pay dividend on Grand Trunk Second Preference stock while holding in suspense £400,000 for renewal. I can get this through general meeting and *avoid serious agitation.* I feel sure, however, some of the Directors will not consent to this unless Mr. Biggar can modify his opinion. You see it even covers dividends on Grand Trunk First Preference Stock. If Mr. Biggar considers it absolutely illegal it appears to me only alternative will be to place much as possible to suspense for renewal and carry forward balance explaining that pending negotiations with Government we did not feel justified in dividing it. I fear Government would then claim amount but if it is not shown openly *shareholders would probably press for Committee of Investigation.* Reply to this and yesterday's cable message separately. Time short. We must make announcement March 16th."

March 12th, 1917, Chamberlin cables Smithers:—

"Mr. Biggar's view is that under the Act of 1862 dividends on the stocks in question are only payable in case sufficient 'net earnings' are available and that in arriving at 'net earnings' provision must first be made for payment of the amounts due the Government under the guarantees referred to. So long as you do not utilize in payment of those dividends moneys required to pay the Government should payment be insisted upon, the question of legality would not, in his opinion, arise."

March 12th, 1917, cable Smithers to Chamberlin, in which he refers to fact that dividends on guaranteed stock for 1915 paid without questions and so on, and suggests loan of $8,000,000 cleared Grand Trunk Pacific until end of 1916, and shareholders so informed in notice to Stock Exchange.

Chamberlin replies by cable, March 13th, 1917, in which he points out that he never intended to convey the impression that interest was cancelled but only deferred for future consideration, etc. There are one or two further cables in the same line.

Finally on March 10th, 1917, Smithers cables Chamberlin:—

> "Board have decided to pay Grand Trunk Second Preference stock dividend in full, reduce General interest by £100,000 and include amount in Preferred credit items as suggested in your cable message of February 27th, also debit net income account with £400,000 as a reserve towards meeting contingencies and possible liabilities showing amount specially in the general balances. Announcement published to-day."

Dividends paid; unpleasantness to Directors avoided. Neither Sir Alfred Smithers nor Mr. Chamberlin were produced as witnesses on the part of the Grand Trunk Railway Company of Canada. Further comment is unnecessary.

The next question to be discussed is the effect of the evidence disclosed in the proceedings before what is commonly known as the "Drayton-Acworth Commission." Considerable evidence was adduced before us and argument as to so-called "Deferred Maintenance Reserves." I quoted on the argument two authorities, and repeat them.

> "In the Supreme Court of the United States. City of Knoxville vs. Knoxville Water Company. 212 U.S, Rep. 2, at p. 13.
>
> Mr. JUSTICE MOODY: The court refused to approve this method, and we think properly refused. A water plant, with all its additions, begins to depreciate in value from the moment of its use. Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs, but for making good the depreciation and replacing the parts of the property when they come to the end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning.
>
> It is not only the right of the company to make such a provision, but it is its duty to its bond and stockholders, and, in the case of a public service corporation, at least, its plain duty to the public. If a different course were pursued, the only method of providing for replacement of property which has ceased to be useful would be the investment of new capital and the issue of new bonds or stocks. This course would lead to a constantly increasing variance between present value and bond and stock capitalization—a tendency which would inevitably lead to disaster either to the stockholders or to the public, or both. If, however, a company fails to perform this plain duty, and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over-issues of securities, or of omission to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question, the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past."

And in a case decided by Jessel J., then Master of the Rolls, pertinent language on the same point is used. This was a case in which an application was made to

restrain payment of dividends, the contention being that profits had not been made entitling the company to the payment of dividends.

In delivering judgment, Jessel, J., Master of the Rolls, used the following language:—

> "Then I have to consider the question, What are net profits? A tramway company lays down a new tramway. Of course the ordinary wear and tear of the rails and sleepers, and so on, causes a sum of money to be required from year to year, in repairs. It may or may not be desirable to do the repairs all at once; but if at the end of the first year the line of tramway is still in so good a state of repair that it requires nothing to be laid out on it for repairs in that year, still, before you can ascertain the net profits, a sum of money ought to be set aside as representing the amount in which the wear and tear of the line has, I may say, so far depreciated in value as that that sum will be required for the next year or next two years. Take the case of a warehouse. Supposing a warehouse-keeper, having a new warehouse, should find at the end of the year that he had no occasion to expend money in repairs, but thought that by reason of the usual wear and tear of the warehouse, it was £1,000 worse than it was at the beginning of the year, he would set aside £1,000 for a repair or renewal or depreciation fund before he estimated any profits; because, although that sum is not required to be paid in that year, still it is the sum of money which is lost, so to say, out of capital, and which must be replaced. I should think no commercial man would doubt that this is the right course—that he must not calculate net profits until he has provided for all the ordinary repairs and wear and tear occasioned by his business. In many businesses there is a regular sum or proportion of some kind set aside for this purpose. Ship-owners, I believe, generally reckon so much a year for depreciation of a ship as it gets older. Experience tells them how much they ought to set aside; and whether the ship is repaired in one year or another makes no difference in estimating the profits, because they know a certain sum must be set aside each year to meet the extra repairs of the ship as it becomes older. There are very many other businesses in which the same thing is done. That being so, it appears to me that you can have no net profits unless this sum has been set aside."

Other authorities to the same effect were cited by Mr. Butler in his argument to the Board.

Following the letter of the 10th December, 1915, the Commission was appointed to enquire into the whole railway situation, and material evidence under oath was given by Mr. Chamberlin, President of the Grand Trunk Railway Company of Canada, and of the Grand Trunk Pacific, and corroborated by Mr. Kelley, then Vice President and Chief Engineer.

There has been no attempt to vary this evidence. Mr. Chamberlin was not produced as a witness in the Arbitration proceedings; and Mr. Kelley, although on the stand for several days, was not questioned in regard to these statements. I quote some parts of this evidence. Sir Henry Drayton asked Mr. Chamberlin the following questions:—

> "There is one other matter; you think that the Government as a matter of fairness to the Grand Trunk, ought to relieve the Grand Trunk Railway Company of its total Grand Trunk Pacific investment?
>
> "Mr. CHAMBERLIN: I do.
>
> "Sir HENRY DRAYTON: And repay to the Grand Trunk the money it has in the Grand Trunk Pacific, and relieve the company of all its responsibilities. That is a large order. We want to give you every opportunity to state every ground on which you think that should be done.

"Mr. CHAMBERLIN: Well, Sir Henry, if you will look at this map, you will see where the Grand Trunk Pacific stretches away off up through the north country, while the Grand Trunk is away down in this part of the country. It is not a natural connection of the Grand Trunk is it? It is not only not a connection with the Grand Trunk but it is not of any benefit to the Grand Trunk.

"In the first place, we are under contract to send all business over this north line, away from the Grand Trunk. The Grand Trunk cannot derive any benefit from it, under the contract with the Government.

"Commissioner ACWORTH: That is a new point, to me.

"Mr. CHAMBERLIN: In addition to that, the company is bound to put steamers on the Atlantic and steamers on the Pacific, to accommodate all that business, and yet it does not bring one dollar of business to the Grand Trunk.

"Commissioner ACWORTH: How does that obligation arise?

"Mr. CHAMBERLIN: It arises out of the contract with the Government.

"Commissioner ACWORTH: The original contract with the Government?

"Mr. CHAMBERLIN: The original contract.

"Mr. BIGGAR: Of July 29, 1903.

"Commissioner ACWORTH: Is the agreement a schedule to the Act?

"Mr. BIGGAR: Yes, sir, a schedule to the Act of 1903. Chapter 80, I think it is.

"Commissioner ACWORTH: Therefore, if the Grand Trunk, as it does at present, operate or control the operation of the Grand Trunk Pacific, were to send traffic through Portland instead of through Halifax, it would be a fraud on the agreement?

"Mr. CHAMBERLIN: Yes. We are bound to go on with all that tremendous outlay and to carry that load, and yet not get one dollar of benefit from it. The Grand Trunk simply cannot carry it.

"Commissioner ACWORTH: Let me ask this question; when you went away from the agreement to work the Transcontinental, was that question of the obligation of the Grand Trunk Pacific to carry over the Transcontinental ever raised?

"Mr. CHAMBERLIN: No. The agreement is with the Grand Trunk Pacific, not with the Transcontinental.

"Commissioner ACWORTH: But it was practically Grand Trunk, rather than Grand Trunk Pacific.

"Mr. CHAMBERLIN: It is in the name of the Grand Trunk Pacific, not of the Grand Trunk.

"Commissioner ACWORTH: The Grand Trunk Pacific said they could not work the Transcontinental with its present cost?

"Mr. CHAMBERLIN: Yes.

"Commissioner ACWORTH: And the Grand Trunk Pacific did not raise, and the Grand Trunk was not in a position to raise—that is what it comes to—the question of whether the obligation remaining on the Grand Trunk Pacific to run over the Transcontinental was a reasonable one?

Mr. CHAMBERLIN: Well, it was not raised, anyway.

"Commissioner ACWORTH: I am an outsider in regard to these matters and have to pick them up as we go along.

"Mr. CHAMBERLIN: The only body that could raise that question would be the Government, I should say.

"Mr. BIGGAR: The only company which could raise any objection would be the Grand Trunk Pacific.

"Commissioner ACWORTH: An obligation to operate *via* Halifax rather than *via* Portland is an obligation of the Grand Trunk, not of the Grand Trunk Pacific?

Mr. BIGGAR: Yes. It is provided for in the agreement dated the 29th of July, 1903, which is a schedule to chapter 71 of the Statutes of Canada, 1903.

"Commissioner ACWORTH: The Act constituting the system?

"Mr. BIGGAR: An Act confirming an agreement entered into between His Majesty the King and Sir Charles Rivers Wilson and others acting on behalf of the Grand Trunk Pacific Railway Company.

"Clauses Nos. 41 to 45, inclusive, provide:—

"41. At all times during the terms of the said lease the company shall continuously and efficiently operate both divisions of the said railway, giving due and sufficient service for the accommodation of all traffic to the satisfaction of the Government.

"42. It is hereby declared and agreed between the parties in this agreement that the aid herein provided for is granted by the Government of Canada for the express purpose of encouraging the development of Canadian trade and the transportation of goods through Canadian channels. The company accepts the aid on these conditions, and agrees that all freight originating on the line of the railway, or its branches, not specifically routed otherwise by the shipper, shall, when destined for points in Canada, be carried entirely on Canadian territory, or between Canadian inland ports, and that the through rate on export traffic from the point of origin to the point of destination shall at no time be greater *via* Canadian ports than *via* United States ports, and that all such traffic, not specifically routed otherwise by the shipper, shall be carried to Canadian ocean ports.

"43. The company further agrees that it shall not, in any matter within its power, directly or indirectly, advise or encourage the transportation of such freight by routes other than those above provided, but shall, in all respects, in good faith, use its utmost endeavours to fulfil the conditions upon which public aid is granted, namely, the development of trade through Canadian channels and Canadian ocean ports.

"44. In respect of the tolls for any traffic carried partly over any line of railway operated by the company and partly over any of the lines of the Intercolonial railway, a fair and equitable rateable division of all such tolls shall be made by mutual agreement, or, in case of dispute, such division shall be fixed by arbitrators appointed in the manner provided by paragraph forty-seven of this agreement, or by a Board of Commissioners which may hereafter be duly appointed as mentioned in paragraph nineteen of this agreement, and with the right of appeal as therein mentioned.

"45. The company shall arrange for and provide, either by purchase, charter or otherwise, shipping connections upon both the Atlantic and Pacific oceans sufficient in tonnage and in number of sailings to take care of and transport all its traffic, both inward and outward, at such ocean ports within Canada, upon the said line of railway, or upon the line of the Intercolonial railway, as may be agreed upon from time to time, and the company shall not divert or, so far as it can lawfully prevent, permit to be diverted, to ports outside of Canada any traffic which it can lawfully influence or control, upon the ground that there is not a sufficient amount of shipping to transport such traffic from or to such Canadian ocean ports.

"Mr. CHAMBERLIN: We are bound to make the same rates from Halifax and St. John as are made to Boston and Portland, and we are bound to provide steamships on the Atlantic and on the Pacific to take care of any business offering.

"Commissioner ACWORTH: You never have provided ships on the Atlantic, in fact?

"Mr. BIGGAR: No.

"Commissioner ACWORTH: And the Government has never called on you to carry out your contract?

"Mr. CHAMBERLIN: You talk about the money the Government would have to raise to pay off the Grand Trunk. They would not have to raise $250,000. This has been financed on a three and four per cent basis except on loans from the Government, and I have offered to take the advances in Government bonds of ten or fifteen years.

"Sir HENRY DRAYTON: But the obligation is there the burden is there, and the carrying costs are there.

"Mr. CHAMBERLIN: Yes, but it is really a matter of financing, to-day.

"Sir HENRY DRAYTON: Your first point, Mr. Chamberlin, is that the Grand Trunk is not interested in all this development at all, and that the railway as contracted for and laid out is something which takes traffic away from the parent Grand Trunk System instead of giving traffic to it.

"One answer that might be quite easily made to that is that the representatives of the Grand Trunk must have known all that when this contract was entered into?

"Mr. CHAMBERLIN: I don't know.. They must have. Of course, I do not want to criticize my predecessors."

(p. 81).

"Sir HENRY DRAYTON: You speak of confiscation, in your letter, Mr. Chamberlin. No person is thinking of confiscating the investment that I know of. If you can afford to carry it, you will be allowed to carry it. That was not really meant, was it? Suppose you are left to yourselves, *the thing crashes,* no one confiscates it. Isn't that right?

"Mr. CHAMBERLIN: To a certain extent, yes.

"Sir HENRY DRAYTON: To every extent, isn't it?

"Mr. CHAMBERLIN: To every extent.

(p. 82).

"Sir HENRY DRAYTON: You also mention in your letter that the money was put into the undertaking in good faith, and that it was a national undertaking. We have to look upon that more or less in the way these large terms are usually taken. It is only national to the extent that the agreement makes it.

"Mr. CHAMBERLIN: Of course we are very anxious to avoid a break or a *crash.* The Grand Trunk has to raise a great deal of money, as you know in your Department, for grade separations, improvements to hotels, etc.

"Sir HENRY DRAYTON: I quite agree with that. You should be able to raise a great deal of money for the purchase of rolling stock and so on.

"Mr. CHAMBERLIN: We have to. Of course the debenture stock is a first Lien, and these guarantees are right behind the debenture stock.

"Sir HENRY DRAYTON: Your point, I take it, is that it is impossible for the Grand Trunk to continue its service and raise money, under these circumstances.

"Mr. CHAMBERLIN: Absoluetly.

"Mr. CHAMBERLIN: The idea is that if the Grand Trunk and the Grand Trunk Pacific *go into insolvency—which they will have to do* if the Grand Trunk attempts to carry out that arrangement—the Grand Trunk Pacific having been heralded and looked upon as a Government backed road, it would naturally have an effect upon the other securities as well."

(p. 83).

"Sir HENRY DRAYTON: Doesn't it really come down to this, that the statements in your letter mean that in your view, in order to protect the finances

of the Grand Trunk, and as a corollary to protect the finances of the country, the Government ought to relieve the Grand Trunk in regard to its investment; isn't that the whole thing?

"Mr. CHAMBERLIN: That is the whole thing.

"Sir HENRY DRAYTON: There is nothing else to it?

"Mr. CHAMBERLIN: Nothing else.

"Mr. CHAMBERLIN: The fact is that the Grand Trunk is not able to contribute anything towards paying its own security holders and making the improvements the people of Canada demand and the business of Canada requires.

"Sir HENRY DRAYTON: But last year the Grand Trunk gave its shareholders half a million sterling?

"Mr. CHAMBERLIN: Yes."

(p. 84, line 1).

"COMMISSIONER ACWORTH: To say to the Grand Trunk that they must pay these liabilities to whatever extent they can, because as far as the public was concerned the Government would have to face the rest, but that the Grand Trunk must do all it can.

"Mr. CHAMBERLIN: The Grand Trunk can just about meet it, but cannot pay the shareholders anything.

"COMMISSIONER ACWORTH: It divided a profit last year of $2,500,000?

"Mr. CHAMBERLIN: You do not call it munificent, to pay interest on your guaranteed securities, do you?

Commissioner ACWORTH: But guaranteed stock is a share, not a bond. Are we agreed upon it, that the company divided a certain amount last year as a profit, a profit dividable as a dividend?

"Mr. CHAMBERLIN: How about the first, second, and third Preference stocks?

"COMMISSIONER ACWORTH: Those holders would not get anything. For a series of years there has always been some amount paid as dividend?

"Mr. CHAMBERLIN: We would not have paid so much last year, if we had paid out on the Grand Trunk as much as we ought to have paid for betterments.

"Sir HENRY DRAYTON: If you had paid all you should have paid out for betterments, you would not have been likely to have paid anything?

"Mr. CHAMBERLIN: No. We have not put in any rails for two years past, of any account.

"Sir HENRY DRAYTON: How much do you think you should put in, to keep things right, in order to look after proper operation?

"Mr. CHAMBERLIN: We should have at least three and perhaps four per cent put aside every year on rolling stock. That would amount to from $2,000,000 to $2,500,000.

"Sir HENRY DRAYTON: You have never done that?

"Mr. CHAMBERLIN: We have never done that. I have had it before the Board, and have practically insisted upon it being done whenever we get any new rolling stock. I bought about 10,000 cars the first year I was here. They were all charged to capital account. We should have had a reserve fund for taking care of them. We now have to go and do the same thing over again.

"Sir HENRY DRAYTON: Supposing you were to reconstruct your accounts now; I want to see what effect these items would have on the Grand Trunk. What would the providing of three or four per cent annually amount to?

"Mr. CHAMBERLIN: My idea is that it would take five per cent. Take engines and cars, they are either worn out or out of date in twenty years.

"Sir HENRY DRAYTON: I agree with you absolutely. If you were to tell your accountants to go and make provision of that kind in respect of your equipment, on that basis, it would preclude the shareholders from receiving anything for years and years?

"Mr. CHAMBERLIN: You mean, if we made it up for back years?

"Sir HENRY DRAYTON: Yes.

"Mr. CHAMBERLIN: Yes, it would. It would mean $2,750,000 a year.

"Sir HENRY DRAYTON: You would have to go back probably twenty years to make it right.

"Mr. CHAMBERLIN: Yes.

"Sir HENRY DRAYTON: To put your accounts in proper shape, in regard to a proper equipment, would require a reserve of $25,000,000.

"Mr. CHAMBERLIN: Take the matter of grade separation at Toronto, for instance.

"Sir HENRY DRAYTON: Suppose you suggest $27,000,000—wouldn't $25,000,000 be enough to properly provide for reserves for equipment?

"Mr. CHAMBERLIN: Yes, I think it would. We have now a lot of new equipment charged to capital; if we had $25,000,000 now, it would put us in fine shape."

(P. 85)

"COMMISSIONER ACWORTH: I don't know about 1916, but even in 1915 you did not put in very many new rails?

"Mr. CHAMBERLIN: No, we did not.

"COMMISSIONER ACWORTH: And did not make a reserve for the money you would have spent if you had got the rails?

"Mr. CHAMBERLIN: I do not mean to say that the rails are dangerous. But we must put in a certain percentage every year. If we go over a couple of years, the first thing we know we will have a lot of rotten rails."

Next in order is Mr. Kelley's statement in answer to Sir Henry Drayton. See Exhibit No. 444. I quote from the Drayton-Acworth Report at page xxxiii. The details are fully set out in the Exhibit referred to.

"The Vice-President in charge of operations, Mr. Kelley, has direct responsibility for the plant. On Mr. Chamberlin's evidence being put to him, he agreed with it. He has since submitted to us a full report on the question of Deferred Expenditure. 'Deferred Expenditure' means, in plain English, expenditure which has not been made, but which, in view of those charged with the duty of maintaining the plant, ought to have been made.

"We give below Mr. Kelley's summary in tabular form, but we do not think it necessary to reproduce all the supporting tables.

"GRAND TRUNK RAILWAY SYSTEM"
SUMMARY OF DEFERRED EXPENDITURES

Rebuilding and reinforcing freight car equipment		$ 8,943,971.14
Rebuilding freight and passenger cars with safety appliances—		
Original estimate	$850,722.50	
Already expended	392,220.89	
Balance to be expended		458,501.61
Equipping engines with safety appliances—		
Original estimate	$ 17,828.00	
Already expended	553.68	
Balance to be expended		17,274.32
Deferred renewals in Maintenance of Way Department—		
In Canada	$6,182,672.00	
In United States	5,578,926.00	
		11,761,598.00
Total		$21,181,345.07

MONTREAL, March 5, 1917."

"On the single item of 'rails' the 'cash expenditure required to restore to normal conditions' is reported as $5,312,142. The cost of restoring ballast to normal conditions is reported as $2,434,000.

"With reference to the Deferred renewals in Canada amounting to over $6,000,000, it appears that they have accumulated during 11 years, 1906-16. During this period, in spite of the requirements of the property, and the claims of public safety, $36,000,000 were paid out in dividends.

"The $21,000,000 dealt with above represent the money which the responsible officers of the company estimate to be required to put the existing plant into good normal condition. This is a revenue liability. But the existing plant is quite in adequate for existing traffic and requires large additions, for which new capital must be raised. The estimates of necessary capital expenditure submitted to us are as follows:—

Requirements for rolling stock, shops and machinery....	$26,150,000
Requirements for automatic block signals (main line in Canada only)..	3,533,000
Requirements for installing rock ballast crushing plant..	467,500
Total..	$30,150,500

Putting together revenue and capital expenditure, we find that the Grand Trunk Railway, in the opinion of its own officer, requires over $51,000,000 spent upon it to put it in a position to meet the requirements of its to-day's business. We see no reason to expect that under existing conditions this necessary money will be provided.

Before dealing with the correspondence leading up to the agreement and the meaning of the agreement, it may be well to refer to what is called "The Budget." It throws light on the financial position of the Grand Trunk Railway System. The Budget is contained in exhibit 475. It is headed:—

"The Grand Trunk Railway System.
"Estimated Cash Requirements including Capital.
"Expenditure, meeting obligations, etc.
"January 1, 1921, to March 31, 1922."

The grand total is $89,687,633.39.

It is only necessary to consider the enormous outlays necessary, to understand how futile it is to expect a railway to pay dividends unless material outside assistance is furnished.

It is unnecessary to set out in detail the items of requirements for the fifteen months from January 1, 1921, to March 31, 1922. Exhibit 475 contains the information in full.

I proceed now to give my views as to the construction to be given to the agreement. In the opinion pronounced on February 7, 1921, I declined to acquiesce in the argument of Mr. Lafleur that the Statute in question was a forcible expropriation of the three Preference Stocks and the Common Stock.

After hearing further argument by Counsel for the Grand Trunk Railway and the Crown, I am convinced that the view I formed is correct. The correspondence printed regarding the Grand Trunk Railway acquisition, and the facts leading up to the agreement, demonstrate that the shareholders were quite free to enter into an agreement or not as they thought best in their own interests. It is apparent that the Grand Trunk Railway were at the end of their tether and without assistance could not carry on: and, aware of this fact, the Company endeavoured to obtain the best price possible for the sale of their undertaking.

In 1919, Chapter 17, George V, was enacted, which authorized the Government and the Grand Trunk Railway to enter into an agreement by which the Crown would

acquire and the Grand Trunk Railway of Canada would sell the whole Grand Trunk Railway System to the Crown on the terms set out in the Statute.

There was no compulsion or forcing of the Grand Trunk Railway shareholders to enter into the agreement; they were free agents and as such voted in favour of the agreement, and thereupon the agreement of March 8, 1920, was entered into by the Crown and the Company.

Under the terms of this agreement the Crown assumed large liabilities of the Grand Trunk Railway System from the date of the appointment of the Committee of Management, May, 1920.

The contention on the part of the Crown was that they had agreed to pay full and adequate compensation, and that there was no value in the first, second and third Preference stocks or in the common stock of the Grand Trunk Railway Company of Canada.

The Grand Trunk Railway Company of Canada, on the other hand, contended that there was value to the holders of the first, second and third preference and common stocks, and the agreement provided for this Arbitration to determine what, if any, sum should be paid to the stockholders.

If the Board of Arbitrators find any sum due this amount is to be satisfied by guaranteed stock bearing interest at four per cent, such interest dating back to the date of the appointment of the Committee of Management, namely, May, 1920, the date when practically the sale and purchase was completed.

It is a common form of agreement for a vendor to agree to sell and a vendee agree to buy for a price to be settled by arbitration. In the Court of Chancery in Ontario and I think in England it is common practice to obtain a vesting order where a vendor refuses to carry out the terms of a judgment ordering him to convey the property.

In this case, whether any amount is awarded or not, the four classes of stockholders have agreed to assign their stock.

Coming now to the construction of Clause 6 of the agreement of the 8th March, 1920:—

"The value, if any, to the holders thereof"; Iam of the opinion that "value" means the "intrinsic value."

The cases cited by Mr. Tilley, Peake *vs.* Derry, etc., are very much in point. All the negotiations are based on earning power, and it was the intrinsic value the parties evidently had in view.

Watcham vs. Attorney General E.A. Appeal Cases 1919, p. 538. And for the reasons given the quotations of the Stock Market would form no criterion.

I now proceed to deal with the important question, the subject matter of the decision of the 7th February, which decision *seemed* to afford considerable dissatisfaction to the counsel for the Grand Trunk Railway Company. I see no reason whatever to doubt the correctness of the view I then formed, and I do not wish to repeat the reasons I then gave.

Throughout the proceedings Counsel constantly referred to this decision as "the majority decision." This is incorrect. So far as the principle or basis of compensation is concerned, the Board are unanimous. My friend Mr. Taft, who is quoted as "the dissenting Arbitrator," is, if the record is correct, fully in accord with the views expressed by Sir Thomas White and myself. I quote his language:—

> "Without saying that market quotations may not be submissible, it is clear that we must look for other means of determining the issue here. The whole stock of the railway is valuable or otherwise as the ownership and control of the physical property of the railway as a going concern in the discharge of its public duties will enable it to earn a sufficient amount to pay dividends on the stock. We are, therefore, to capitalize its net earning capacity, present and potential, and fix the value of the stock on that basis. Its

earning capacity, present and potential, is what is now earned and what it may be expected to earn under reasonable probable conditions. Net earnings are the revenue received less the operating expenses. What determines the revenue of a going railway are the amount of its business and the rates it can charge."

During Mr. Tilley's argument for the Crown, the following remarks of Mr. Taft indicate a complete accord with the views of the majority (p. 7676):—

"Hon. Mr. TAFT: Mr. Tilley, we are here to determine the value of this road, this Company's property, and we are using these accounts to find out what its earning capacity was during these various years. We also have to take into consideration what its liabilities are; what its permanent liabilities are. These seem to be, so far as the Grand Trunk Pacific is concerned, something like $3,700,000."

Again at page 7678:—

"Hon. Mr. TAFT: The question of the operating income; the net operating income is the basis on which we must calculate the value of this road, reduced by what its liabilities may be in the future."

The point of difference was to the reception of certain evidence. This evidence, according to the view of Mr. Taft, might be of value as indicating a probable increase of rates by the Interstate Commerce Commission.

Under Clause 7 of the agreement, the Arbitrators, or a majority, have sole discretion as to the admission of evidence, and if the majority are of opinion that no amount of evidence of the character offered would effect their opinion, surely it was their duty to rule it out and save an enormous amount of expense and delay. Besides, if what the Board consider is the correct principle upon which the valuation has to be made, namely, earnings, how can it possibly affect the case what the reproduction cost might be? The question that might come up before the Interstate Commerce Commission is not merely the value of the Grand Trunk Railway System, but the value of the group of railways of which the Grand Trunk Railway is but one, and how could we go into these questions? It would be a pure guess, not based upon any accurate knowledge.

In the case of the United States vs. the Boston Cape Cod and New York Canal Company, decided by the Circuit Court of Appeal, First Circuit, Massachusetts, on February 16th, 1921, and reported in 71 Federal Reporter (June 16th, 1921) elaborate reasons are given. A petition had been filed on behalf of the United States for condemnation against the Boston, Cape Cod and New York Canal Company, and this was an appeal on behalf of the United States from the judgment of Judge Morton. In this case it must be borne in mind that under the statute the actual cash value of the canal had to be appraised. Evidence had been given by a Professor Johnson as to the probable future revenue based on an increase of the tolls.

The Court at page 886 used the following language:—

"Then, again, the tolls which the Canal Company could charge on the interstate traffic passing through the Canal were subject to Governmental regulations and the opinion of Professor Johnson as to the probable future revenue based on an increase of tolls was in any aspect nothing more than a mere guess."

This case is also of value in dealing with the roseate views expressed by counsel for the Grand Trunk as to the future. In the head note on page 877 under Section 3, Evidence, it is said:—

"Future earnings of canal not proper subject of opinion evidence.

"In a suit by the United States for condemnation of a canal used for interstate traffic, the probable future tonnage of the canal and the additional revenue to be derived in view of such increased tonnage, held not a proper subject for opinion evidence."

And in the Reasons for Judgment the following language is used on page 886:—

"Tested by this rule, was the opinion of Professor Johnson as to the probable future tonnage of the Canal and the additional revenue to be derived in view of such increased tonnage a proper subject of opinion evidence? We think it was not. It seems to us that the jury might well be supposed to be able to determine the future increased tonnage of the Canal from a statement of the facts upon which the witness might found his own opinion. In this case it could be shown what the tonnage passing through the Canal was at the time of the taking, and the increase in the tonnage that had taken place from the time the Canal was opened to the time of taking. It could also be shown what the tonnage going around the Cape was at the time of taking, and what the increase was over a reasonable period antedating that time, and, from this and other competent evidence bearing on the question, we think the jury could form a correct judgment of the probable future increase on the tonnage through the Canal without the opinion of an expert."

I agree with Mr. Lafleur's statement of the law laid down in the Cedar Rapids case, 1914 Appeal Cases p. 576 (p. 7036 of the Record): "For the present purpose it may be sufficient to state two brief propositions: First, the value to be paid for is the value to the owner as it existed at the time of the taking; not the value of the taker. Second, the value to the owner consists in all the advantages which the land possesses, present or future, but it is the present value alone of such advantages that falls to be determined. Where therefore the element of value over and above the bare value of the ground itself, commonly spoken of as the 'agricultural' value, consists in the adaptability for a certain undertaking—although 'adaptability' is really a rather unfortunate expression, the value is not a proportionate part of the assumed value of the whole undertaking."

It is the present value alone of such advantages as falls to be determined. The stocks are acquired as of May, 1920. The value must be ascertained as of that date. The potential value would be reflected—to use a happy expression of Sir Thomas White—in the value as of May, 1920.

In the case of land, with a market value ascertained, the potential value would form part of the market value, and no difficulty arises. In the case of these stocks, there is no market value. If we were to look ahead—which I do not think would be proper—it will be seen that notwithstanding the increased rates for a portion of the year there was a deficit of earnings, outstanding, of about $11,000,000 in 1920. It is argued that working expenditure would be lessened. If so, the rates allowed will likely be lowered. It is impossible to forecast what may take place. In dealing with the questions of potential value certain facts must be carefully kept in mind.

The value of these four classes of stock has to be ascertained as of the month of May, 1920, the date of the appointment of the Committee of Managament.

Any potential value that can be attributed to these stocks must be ascertained as if the Government had not come to the relief of the railway. After the Government entered into the agreement and the Committee of Management was appointed the policy of the management altered; opposition of competing lines would cease, etc.

If therefore the value of these four classes of stock, including their potential value, is to be ascertained on the basis of the Grand Trunk System continuing to operate as theretofore, could any sane business man with a knowledge of the facts, come to any conclusion different from that come to by Mr. Chamberlin that a crash was inevitable, and insolvency and receivership the sequel, and would there be any reasonable chance of these four classes of stockholders ever receiving a cent on their investments? I think not.

By the agreement in question of the 8th of March, 1920, what the Grand Trunk Railway Company of Canada were agreeing to convey, and what His Majesty the King was purchasing, was the entire System, necessarily as a going concern. The

Crown has assumed obligations amounting to a very large sum of money. The earning of a sufficient amount to pay the interest on, and subsequently the principal of these obligations, depends upon the continued operation of the System as a going concern.

The schedule set out in detail the various properties comprising this System.

The first clause of the Agreement reads as follows:—

> "1. Statement of Control.—The Grand Trunk represents that the companies, properties and interests comprised in the Grand Trunk Railway System are correctly and fully set forth in the first schedule to this Agreement, and that it has in such schedule correctly and fully shown how the various companies and their undertakings are controlled by the Grand Trunk, whether by stock ownership and to what extent, and whether by leases, agreements or otherwise, distinguishing in these the direct ownership and control by the Grand Trunk from the indirect ownership and control through companies included in the System."

Clause 4 provides for the appointment of the Committee of Management of the Grand Trunk System.

Clause 10, headed, "Undisclosed Liabilities" is also important in this connection.

Clause 17 as to the "Superannuation and Pension Funds" is also important, indicating a continued operation of the System.

To my mind it is impossible to reasonably contend that "reconstruction value" can have any bearing on the matters to be determined by the Board. At the time of the Agreement all the properties mentioned in the schedules formed part of and were operated as a part of the System, and were passed to the Crown as an operating System, and no part of these properties has been severed from the System or any attempt made to sell them separately. If hereafter the Crown adopts the view that certain properties might be disassociated from the System and sold, and the assent of those having charges, and the necessary authority obtained, it is something these shareholders have no concern with.

I have given the best consideration I am capable of giving to the important questions submitted for our consideration and am of the opinion that our Award should be that there is no value in any of the four classes of stocks.

If equitable or moral considerations are to be considered, those who control the public funds must deal with the question, not the Board.

REASONS FOR AWARD

(BY THE RT. HON. SIR THOMAS WHITE, K.C.M.G., P.C.)

In the matter of the Arbitration under the Agreement dated the eighth day of March, 1920, between His Majesty the King and the Grand Trunk Railway Company of Canada, confirmed by Act of Parliament, Chapter 13, 10-11, George V.

The reference to arbitration herein arises under and by virtue of an Agreement dated the eighth day of March, 1920, between the Government of Canada (hereinafter called "the Government") and the Grand Trunk Railway Company of Canada (hereinafter called "the Grand Trunk"), ratified and confirmed by an Act of the Parliament of Canada assented to on the eleventh day of May, 1920.

The purpose of the Agreement was to provide for the acquisition by the Government, upon the terms set out in the Agreement, of the "entire capital stock of the Grand Trunk except the four per cent guaranteed stock of the Grand Trunk amounting to £12,500,000." As part consideration for such acquisition the Government agreed to guarantee the payment of:—

(*a*) Dividends payable half yearly at four per cent per annum upon the said four per cent guaranteed stock;

(*b*) The interest upon outstanding debenture stock of the Grand Trunk as and when payable in accordance with the terms thereof, consisting, as stated in the Agreement, of the following:—

Five per cent Grand Trunk debenture stocks	£ 4,270,375
Five per cent Great Western debenture stocks	2,723,080
Four per cent Grand Trunk debenture stocks	24,624,455
Four per cent Northern debenture stocks	308,215
Total	£31,926,125

It was provided that the above-mentioned guarantees should be signed on behalf of the Government, and, forthwith, after the appointment of the Committee of Management referred to in the Agreement, should be deposited with the High Commissioner for Canada in London, England, "for the benefit and information of all parties concerned," and that concurrently with the deposit of the guarantees the voting powers at meetings of shareholders of the Grand Trunk, vested in or exercisable by the holders of the guaranteed stock and the debenture stocks, should cease and determine absolutely. The Committee of Management was formed on May 21, 1920.

The capital stock (other than the guaranteed stock) which was to be acquired by the Government (and is hereinafter referred to as the preference and common stock) is described in the Agreement as follows:—

First preference stock, five per cent	£ 3,420,000
Second preference stock, five per cent	2,530,000
Third preference stock, four per cent	7,168,055
Ordinary or common stock	23,955,437
	£37,073,492

With reference to the price to be paid by the Government for these stocks, the Agreement expressly provides:—

> "The value, if any, to the holders thereof of the preference and common stock shall be determined by a Board of three arbitrators."

By section 11 of the Agreement a maximum limit is placed upon the amount which may be determined by the arbitrators as the value of these stocks. It is expressly stipulated that the fixing of this limit shall not be taken by the arbitrators as "any admission or indication that the value to be determined is the amount so fixed or any other amount."

Upon the value of the preference and common stock being finally determined, provision is made for payment to the holders thereof through an issue to them of non-voting four per cent fully paid capital stock of the Grand Trunk, upon which payment of dividends at the rate of four per cent per annum, payable half-yearly from the date of the appointment of the Committee of Management above referred to, is to be guaranteed by the Government.

Sections 12 and 13 of the Agreement set forth particulars as to this new guaranteed stock, its distribution to the holders of the preference and common stock which is being acquired by the Government, and as to the transfer of the said preference and common stock to the Government.

From the foregoing it would appear that the date as of which the value of the preference and common stock should be determined was the date of the appointment of the Committee of Management. Counsel for the parties were in accord as to this. The question to be determined is, therefore, "the value of the preference and common stock" to the holders thereof as of May, 1920.

It is to be observed that not all the capital stock of the Grand Trunk is the subject of the submission to arbitration. The £12,500,000 of "guaranteed" stock is not included. Furthermore, the existing debenture stocks aggregating £31,926,125 possessed certain voting powers which, with those pertaining to the guaranteed stock, have ceased and determined since the deposit of the guarantees of the Government in respect of these stocks.

The various subsidiary companies controlled by the Grand Trunk through stock ownership or lease, and also those companies controlled in turn by such subsidiaries, are set out in the first schedule of the Agreement. There are more than seventy in all of these companies which, with the parent Company, the Grand Trunk Railway Company of Canada, are designated in the Agreement as the Grand Trunk System. In presenting its case before the Board, counsel for the Grand Trunk used the expression "Grand Trunk System" as not including the Grand Trunk Pacific Railway Company and its subsidiaries and the Central Vermont Railway Company and its subsidiaries. They did, however, submit evidence as to the condition, earnings, and prospects of both these Companies and their subsidiaries. With respect to the entire System (as designated in the Agreement, including the Grand Trunk Pacific and Central Vermont Railway Companies and their subsidiaries), there was presented evidence covering in great detail and particularity its extent, alleged advantages and defects, condition of road-bed, terminals, plant, equipment and rolling stock and other property, its past, present and estimated future revenues and expenditures, its fixed charges, and the indirect or contingent liability of the Grand Trunk in respect of its guarantees of securities of the Grand Trunk Pacific and Central Vermont Railway Companies. The volume and character of business transacted, the outlook for future business, present and prospective rates and earnings were all made the subject of exhaustive evidence and argument before the Board.

With regard to the Grand Trunk Pacific Railway Company, all of whose issued capital stock is held by the Grand Trunk, counsel for the latter took the position that, as the stock was fully paid, the Grand Trunk was liable in respect of the Grand Trunk Pacific Railway Company (and its subsidiaries) only to the extent of its guarantees of that Company's bonds and debentures as that liability might appear, and subject, of course, to the ability of the Grand Trunk Pacific to meet its obligations in respect thereof. This appears to me to be the strictly legal view of the situation as between these two Companies, and I have adopted it as correct for the purposes of this finding.

As to the Central Vermont Railway Company and its subsidiaries, counsel for the Grand Trunk urged that deficits in the operation of these should not be taken into account in estimating the value of the stock of the Grand Trunk. The reason put forward in support of this contention is the fact that the Grand Trunk owns only seventy per cent of the stock of the Central Vermont Railway Company, which is a corporation separate and distinct from the Grand Trunk. As opposed to this view, it was contended that as important traffic originates upon the Central Vermont Railway, and as it has been operated as part of the Grand Trunk System, the financial results of such operation should be included in the accounts of the system for the purposes of evidence as to net earnings which should be taken into consideration by the arbitrators.

During the proceedings exception was taken by counsel for the Government to certain classes of evidence tendered by the Grand Trunk counsel, and judgment upon the points in issue was given by the Board. This may now be briefly referred to. The first exception taken related to evidence tendered as to the cost of locomotives owned by the Grand Trunk and employed in the operation of its system. The question of the admissibility of this evidence necessarily raised the larger question as to the admissibility of evidence as to the reproduction or replacement cost, or so-called physical value, of the right-of-way, terminals, rolling stock,

and other tangible property exclusively used for railway purposes. The judgment of the Board as to the question of evidence involved was rendered on February 7, 1921, a majority holding that for the purposes of this inquiry evidence as to reproduction or replacement cost, or so-called physical value, was valueless for the purpose of ascertaining the value of the preference and common stock of the Grand Trunk and therefore inadmissible. By the same judgments it was declared that the essential fact to be ascertained was the earning power, actual and potential, of the system and that all evidence bearing upon this was relevant and useful. With reference to this decision it may be observed that it related to property needed for railway purposes, which it was agreed by counsel for both parties could not be sold piecemeal and which it was not suggested should be dealt with in any way save as part of a going railway undertaking. It was pointed out in the judgments of the majority of the Board that no connection could be established between such valuation of the railway property of the Grand Trunk System and traffic rates likely to be established in Canada or United States.

The principal cases cited in support of the objection of counsel for the Government to this class of evidence were:—

Great Central Railway Company
vs.
The Banbury Union
1909 Appeal Cases, page 78.

London County Council
vs.
London Street Tramways Company
2 Queen's Bench Division L.R. 1894, page 189 et seq.

Dewsbury and Heckmondwike Waterworks Board
vs.
Assessment Committee of Penistone Union
16 Queen's Bench Division, page 596.

Since the judgments of February 7 were delivered a decision has been rendered in the Appellate Division of the Supreme Court of Ontario which has a close bearing upon the point in issue. The case was that of The Cobourg and Grafton Road Company *vs.* The Province of Ontario. In this case the toll road in question was taken by the Government of Ontario under the compulsory powers conferred by the Provincial Highway Act, and the question was as to the compensation to be made to the owner of the road. The Ontario Railway and Municipal Board, in giving reasons for its award, which was based upon a capitalization of the earning capacity of the road, rejected the principle of replacement value. Following is a quotation from the opinion of the Board:—

> "The value of the land forming the highway cannot be estimated on the basis of the value of adjoining lands, since its only possible use is as a highway and its only productive value as such arises from the fact that used as a highway certain revenues may be derived in the form of tolls. These observations apply in a greater or less degree to the other tangible property and works which go to constitute the road and which are enumerated in the claimants' summary, viz., cut and fill, ditching, culverts, bridges, road-bed, and toll gates."

Against the award of the Ontario Railway and Municipal Board an appeal was taken by the claimant. While differing as to the rate of interest which should be employed in the capitalization of the earnings of the road, the principle of valuation adopted by the Board was affirmed by the Appellate Division of the Supreme Court of Ontario.

Later during the proceedings, counsel for the Grand Trunk tendered evidence as to the valuation of certain buildings. These included elevators, freight and passenger stations, and hotels. The character of the evidence sought to be adduced is shown by the following extract from page 3765 of the record:—

"Q. You have made, I believe, an appraisal and valuation of the buildings I have just mentioned?

"A. Yes, a complete survey of the quantities and valuation.

"Mr. LAFLEUR: I am tendering this evidence like the other evidence we have tendered as to valuation.

"The CHAIRMAN: If it is objected to there will be the same ruling.

"Mr. TILLEY: You have built it up on the basis of what it would cost to build to-day?

"A. As at January 1, 1920.

"Q. What it would cost to build as at January 1, 1920?

"A. Yes.

"Q. Actual cost?

"A. Actual cost.

"Mr. TILLEY: Then I object to the evidence.

"The CHAIRMAN: It is ruled out.

"Hon. Mr. TAFT: In order to avoid any trouble just note my dissent.

"Mr. LAFLEUR: I point out in regard to the Fort Garry Hotel, Winnipeg, and the Macdonald Hotel, Edmonton, that these two buildings belong to the Grand Trunk Pacific Development Company, and that the Grand Trunk has a claim of about $11,000,000 against that Company for advances of various kinds. I do not know whether that will affect the view of the Board as to our right to show what is the value of the physical assets of the Grand Trunk Pacific Development Company.

"Mr. TILLEY: My submission is you are not proving the value of the assets of the Grand Trunk Pacific Development Company. If the witness will give evidence as to what the two hotels would sell for now in the market, and the suggestion is made that that is their highest value, then I would admit the evidence."

Formal tender was subsequently made by counsel for the Grand Trunk of evidence of the reproduction cost of the physical assets of the subsidiary railway, tunnel, terminal, dock, telegraph, steamship, development and other companies.

The nature of the evidence thus tendered is indicated by the following extract from the testimony of Mr. Berry at page 3223 of the official report of the proceedings:—

"Mr. BUTLER: You used the expression in your testimony this morning 'sales value' and sometimes 'selling value.' By that did you mean the cost of production or the cost of reproduction less depreciation?

"A. I mean cost of reproduction.

"Q. Without considering depreciation?

"A. Without considering depreciation.

"Q. In your answers made to me just now I understood you to say that by 'sales value' as used in your testimony you mean the reproduction cost?

"A. That is what I would sell it for.

"Q. And that is the meaning you give to 'sales value' as used by you in your testimony?

"A. Yes.

All this evidence like that of similar character tendered earlier was ruled out as inadmissible. Personally, I am unable to see that it could be of any value in enabling the Board to come to a conclusion as to the question in issue, viz., the value of the preference and common stock of the Grand Trunk. It was not suggested by

counsel for the Grand Trunk that the System as it stands should be disintegrated and its assets or any of them now actually in use turned into cash, or that its late Directors had ever had such policy in contemplation. Presumably, the use to which the physical assets of the various companies comprised in the System have been put has been that which was deemed best in the interests of the shareholders. Aside from this, the cases cited above are, I think, authority for the statement that reproduction cost of any building, work, or undertaking is not evidence of real value which depends upon the actual and potential earning capacity of the thing valued; in other words, what can be made out of it by way of actual return. Reproduction cost of a building or work may be of value in some cases as showing the maximum beyond which value should not go, but it affords no guidance as to actual value.

In the case of unproductive assets such as the land grants of the Grand Trunk Pacific Railway Company, evidence was admitted of selling value. Testimony as to value of the coal properties of the System was also received.

With regard to the question of the relevancy of evidence as to reproduction cost whether of property which can be used exclusively for railway purposes or which although used in connection with the System may be sold for what it will fetch, I adopt as the best criterion for establishing value the language of Lord Lindley in the case of London County Council vs. London Street Tramways Company, 2 Queen's Bench Division L.R. 1894, at page 206:—

> "Cost price is well known to be no real criterion of the value of an outlay on land. What the result of the outlay will fetch is often much more and often much less than the outlay which has produced it."

And from the Judgment of Lord Justice A. L. Smith at page 219:—

> "There can be no doubt that in an ordinary case where an undertaking such as the present is to be sold and paid for, its present, that is its true value, is in practice arrived at by capitalizing its rental value. I should say that this is the true way of arriving at its present value."

Benefit to the preference and common shareholders of the Grand Trunk could come only through the declaration of dividends from net earnings or from the sale of the assets of their Company for a sum in excess of its liabilities. Any purchaser buying such assets would, as to price which he would be willing to pay, have regard to what he would be likely to make in the way of annual return from his purchase. From whatever angle the question is viewed net earnings, actual and potential, seem to be the essential factor to be determined.

As having some bearing upon the matter of the value of the shares to be valued, records of quotations and sales of the preference and common stock on the London Stock Exchange over a considerable period of years were placed in evidence. In this connection it is to be noted that the agreement expressly prohibits the Board from taking into consideration the fluctuation in the market prices or quotations of these stocks caused by the negotiation of the parties, the passing of the Act or the execution of the agreement. Aside from this provision, however, it does not appear to me that stock market quotations or sales of individual lots of shares are of value in endeavouring to determine the true value of the large body of stock which we are called upon to appraise. Counsel for both parties were agreed that the question is not as to the value to any individual holder of his shares but as to the value of the shares as a collective whole or aggregate. The case of Peek vs. Derry, 37 Chancery Division, cited by counsel for the Government, clearly lays down the principle that it is real and intrinsic, not stock market quotation or value, which should be taken into account. In view of the foregoing it appears to me that the question at issue is what is the real value of the preference and common shares and that this real value depends upon the present and future earning power of the company.

In seeking to ascertain the earning capacity of the Grand Trunk we should, I think, consider all evidence relating to the earnings of the company as of the period

of the acquisition of the shares (May, 1920), as well as the earnings since that date and down to the present time. So far as possible, endeavour should be made to estimate probable future earnings, and for this purpose the earnings of the Grand Trunk System in the past, and especially before the abnormal period of the war, may be specially considered. All evidence as to physical condition of the system and its proper maintenance, the advantages or disadvantages of the location of its lines, volume of business, traffic rates, operating costs, and fixed charges must be given its due weight in its bearing upon the question of earning capacity, and there must also be taken into account the contingent annual liability upon guarantees of the Grand Trunk in respect of securities of other companies.

With respect to the net earnings of the Grand Trunk System (as defined by counsel for the company) for the past ten years, evidence of a minute and elaborate character was presented to the Board on behalf of both parties. A matter very much in controversy was as to whether, in the accounts disclosed by the books of the system, adequate allowance had been made for annual maintenance and whether, in addition, reserves should not have been created against depreciation of buildings, rolling stock, and other equipment. These are, of course, very vital matters, because if proper allowance be not made for current maintenance requirements and for depreciation in the annual profit and loss accounts of the system the true earning power in any year is not disclosed.

It was clearly proven in the course of the inquiry that the reports of earnings shown in the annual statements to the shareholders and to the Railway Department for many years past were inaccurate and misleading. For the year 1913 the published earnings were considerably larger than those shown by the books themselves. Later, during the years 1915, 1916, and 1917, a substantial portion of the earnings was concealed by the creation of an "inside reserve" account. Subsequently, this account was availed of to show during subsequent years larger earnings than were actually made. It is not necessary to deal here with the motives which actuated this policy on the part of the Board of Directors. It will be sufficient to say that these motives were fully revealed in the evidence and that they were not directly connected with the purpose of creating adequate reserves against deferred maintenance or depreciation. To the extent that reserves were so created thy are, of course, to be taken into account in estimating earnings of the years over which they were built up.

Numerous exhibits showing in tabulated detail the results of the operation of the Grand Trunk System since 1910 were placed in evidence on behalf of both parties during the hearings. Out of this mass of testimony there finally emerged a clear and concise statement (Exhibt 470) prepared from the books of the company by its auditor, Mr. McLaren, showing the actual operating results of the Grand Trunk Railway Company of Canada by years irrespective of "inside reserve" or other hidden accounts. I am dealing now with the results of operation of the system as defined and limited by counsel for the Grand Trunk and not inclusive of the Grand Trunk Pacific or Central Vermont systems. The final tables of earnings presented by Mr. McLaren, in his restatement of accounts should, I think, be taken as records correctly compiled from the books of the company. Their accuracy was not in fact disputed by the other accountants who gave testimony before the Board. The accounts of the Grand Trunk System as restated by Mr. McLaren show the following annual results after payment of all operating expenses and fixed charges:—

Year	Surplus	
1910	$ 3,617,876	
1911	4,188,783	
1912	4,482,448	
1913	2,874,592	
1914	2,014,176	
1915	5,755,730	
1916	11,319,341	
1917	3,402,540	
1918	3,872,344	Deficit
1919	6,488,918	Deficit

To these figures must be added the following sums representing profits of subsidiary companies not taken into the accounts of the parent company:—

Year	
1910	$ 83,360
1911	267,865
1912	249,196
1913	484,648
1914	71,132
1915	245,924
1916	732,834
1917	270,540
1918	492,588
1919	166,932

The deficit for 1920 exceeded six and a half million dollars. Including "Federal control" accounts it exceeded ten million dollars.

The restated accounts of the Grand Trunk Pacific and Central Vermont Railway systems which are not included in the above statement show in the aggregate exceedingly heavy deficits for the period in question. I shall refer to them more particularly later on.

From the foregoing it will appear that down to December 31st, 1917, the Grand Trunk System, according to its books of account, was making profits of varying amounts annually available for dividends, while from the end of 1917 down to December, 1920, very heavy annual deficits were incurred. Notwithstanding the increases in traffic rates which were authorized last autumn, the returns for the present year disclose a heavy deficit. The evidence of Mr. McLaren, Auditor of the Grand Trunk, shows the net results of the operation of the system (as defined by Grand Trunk counsel) for the period from January 1st, 1920, to the end of April, 1921. The net loss for this period was over five million dollars. As against the increased traffic rates to which reference has been made, the higher wage scale which went into effect early last year, and the decrease in traffic owing to trade depression following the war, have proven more than an offset.

MAINTENANCE

A question very much in controversy during the proceedings was as to whether the Grand Trunk management had made from year to year proper provision for maintenance of way, structures, equipment, and plant. Counsel for Grand Trunk contended that with the exception of the latter years of the war period, when labour and material were difficult to obtain and during which reserves against deferred maintenance were built up, the System had been maintained to the extent necessary for maximum operating efficiency. Against this view counsel for the Government claimed that for a long period of years the System had been steadily deteriorating by reason of failure to provide out of annual earnings for adequate maintenance and depreciation of equipment and other property, and that in consequence of such failure the actual net earnings of the Company in years for which profits were shown were materially less while the deficits for years of loss in operation were in reality greater than appeared from the books of the Company.

The evidence adduced on this point conclusively established, in my judgment, the essential soundness of the contentions in this regard of the Government.

It was admitted by the Grand Trunk counsel that no special fund had been created against depreciation of rolling stock, buildings, plant, and other equipment of the Canadian part of the System. By Canadian railway law no such fund is required to be maintained. With respect to the American lines forming part of the System, adequate provision against depreciation is required to be made and the Grand Trunk has observed this requirement in the accounts of its subsidiary railway companies operating in the United States. Aside from legal requirements, it seems clear that net earnings cannot be accurately determined for any year without setting aside such a sum as in accordance with the practice of well-managed railway systems will

serve as a setoff against the year's depreciation. The authorities are quite clear as to this. See Bryce on "Ultra Vires," 3rd edition, at page 340, as to the meaning of "profits"; also the statement of Jessel, M.R., in Davison vs. Gillies, 16 Chancery Division 344.

What amount should have been set aside yearly for depreciation the evidence does not help us to determine. It is clear, however, that a considerable annual provision in this respect should have been made in respect of the Canadian portion of the Grand Trunk System before net earnings were assumed to have been made.

With regard to annual maintenance the evidence showed a much more serious state of affairs. The System, at the time of its taking over by the Committee of Management in May, 1920, was confronted with an exceedingly heavy programme of expenditure for deferred maintenance and capital construction. During the last two years of the war a good deal of work of this character had been suspended, but in my view of the evidence a considerable part represented maintenance and construction which should have been done in the pre-war and early war period; in fact, the System over the past ten years and longer does not appear to have been adequately maintained, with the result of gradual deterioration in physical condition and increasing accumulation of deferred maintenance requirements. During the year 1920, after the Committee of Management was appointed, very heavy expenditures were made with the purpose of overtaking work of this character, with the result that the greater part of the System was put in a condition suitable for operating efficiency. Exhibit 457 shows that for the years 1911 to 1917 inclusive an average sum of about six million dollars per annum was expended for maintenance of ways and structures. For 1918 the expenditure under this heading was $11,600,000, for 1919, $17,000,000, and for 1920, $18,100,000. Making due allowance for increased costs of materials and wages, these figures indicate the extent to which maintenance had become deferred. The finding with respect to the matter of annual maintenance must, I think, be that inadequate provision was made for it during a long period of years past and that consequently the net operating earnings of the Company as shown by its books did not truly reflect the real condition of affairs. The letter of Mr. Kelley, the Chief Engineer and new President of the Company, dated March 5, 1917, shows clearly the very serious condition of the System with respect to the matter of deferred maintenance, which he estimated at over $21,000,000. The so-called "inside reserves" created by the Company prior to this date were quite inadequate to meet the deferred maintenance requirements of that period.

After all the heavy expenditure made upon the System from its taking over in May, 1920, until the end of that year, deferred maintenance to the amount of many millions still remained to be done in respect of bridges, trestles, culverts, crossings, ties, track, rails, ballast, track-laying and surfacing, fences, docks, and wharves. Evidence adduced by the Government shows estimated extraordinary maintenance and capital requirements in respect of the Grand Trunk System for the years 1921-1925 inclusive as follows:—

Extraordinary maintenance	$ 8,924,318
Remunerative capital	4,780,087
Non-remunerative capital	43,908,612
Total capital	48,688,699
Total capital and maintenance	57,613,017

The estimate for 1920-1925 according to testimony on the part of the Government was as follows:—

Extraordinary and deferred maintenance	$18,889,343
Remunerative capital	6,887,184
Non-remunerative capital	43,908,612
Total capital	50,795,796
Total capital and maintenance	69,685,139

A large part of the item for non-remunerative capital consists of estimated expenditures for grade separations in Montreal, Toronto, Detroit, Chicago, and other

cities, which must be carried out in the not-distant future. Making the most liberal allowance for all that was adduced against these figures, it is clear that the expenditures with which the Grand Trunk was confronted in May of 1920 for deferred maintenance and capital construction were of most serious amount and of the gravest financial consequence. Mr. Kelley's letter referred to above indicated necessary capital expenditure (over and above deferred maintenance) of an amount exceeding thirty million dollars, the principal item being for rolling stock and shop machinery. The above figures as to deferred maintenance and capital expenditures relate only to the Grand Trunk System exclusive of the Central Vermont and Grand Trunk Pacific systems. The condition of the former as to these items was shown to be quite serious as to deferred maintenance, while that of the Grand Trunk Pacific was of the gravest character.

With respect to the revenues of the Grand Trunk as shown in its accounts, it was proven in cross-examination that large sums were included representing charges for interest upon advances or loans made to certain of its subsidiaries. Some of these advances are quite large, as for example ten million dollars to the Grand Trunk Pacific Development Company and eleven millions to the Grand Trunk Pacific Branch Lines Company. It is clear from the evidence that some of these charges aggregating very large amounts do not represent collectible indebtedness. In so far as such uncollectible indebtedness entered into the accounts of the company as part of its revenues, the annual statements of net earnings were inaccurate and misleading.

In view of the foregoing, it is plain that without taking into account the contingent liability of the Grand Trunk Railway Company or Canada in respect to securities of the Grand Trunk Pacific Railway Company the financial position of the former was most precarious at the time of the appointment of the Committee of Management in May, 1920, which is the date as of which the preference and common shares are to be valued. The years 1918, 1919, and 1920 show deficits of $3,872,344, $6,488,918, and $6,719,362 respectively. The results for the year 1921 show to date a like heavy deficit. Deferred maintenance requirements were large and pressing. In addition, there was confronting the company the program of extraordinary maintenance and capital construction to which reference has been made. Exhibit 474 filed by counsel for the Government shows estimated net cash requirements of the Grand Trunk System for the fifteen months ended March 31, 1922, to be nearly ninety million dollars. Whether, in the financial conditions prevailing in 1920 and since, the company, even if had been relieved of its obligations in respect of the Grand Trunk Pacific, could have met its own situation unassisted by Government aid in the way of direct loans or guarantee of its securities, can only be made the subject of conjecture. My view upon the evidence is that the credit of the company would have proven unequal to the emergency and that a receivership would have been inevitable if not in 1920 then in the next year or two. I do not believe that with such yearly deficits the company could have long continued to float its securities to the amount necessary to meet them and to provide for its heavy program of deferred maintenance and capital requirements. This much, however, is clear. There would have been no dividends available for shareholders in 1920, 1921, nor, so far as can be seen, for many years to come. When to this situation is added the burden of the Grand Trunk's guaranteed liability in respect of the Grand Trunk Pacific Railway Company it will be clear how impossible it would have been for the Grand Trunk Railway Company of Canada to continue as a solvent going concern. The extent of this contingent liability is shown by Exhibit 319 as follows:—

	Principal	Annual Interest
Guarantee on funded debt..	$54,889,000	$2,292,760
Contingent guarantee of interest on 4 per cent debenture stock..	.....	1,395,170
Total..		$3,687,930

The Grand Trunk is liable upon its guarantee of both principal and interest of the funded debt. Its guarantee of the payment of interest upon the 4 per cent debenture stock is out of net earnings of the Grand Trunk in each year after deducting working expenses and certain interest charges. If, in any year after payment of such working expenses and other charges, any net earnings remain over, the liability of the Grand Trunk upon such guarantee for the year in question would have to be met in priority to any dividend distribution. The statements presented to the Board show clearly the grave financial condition of the Grand Trunk Pacific Railway now in liquidation. This company is hopelessly bankrupt with no prospect now or for years to come of earning even its operating expenses, much less its fixed charges. The contingent liability of the Grand Trunk in respect of the securities mentioned must be regarded as a continuing charge against the earnings and credit of the Grand Trunk until full payment is made in accordance with the terms of the guarantees. It is quite clear that nothing by way of relief can come from the earnings of the Grand Trunk Pacific Railway undertaking. The liability thus imposed upon the Grand Trunk is so serious that it is desirable to carefully describe and analyze the condition and prospects of this company in order to show the facts upon which these conclusions are founded. It would be difficult to imagine a more misconceived project than that to which the Grand Trunk committed its credit in this unfortunate enterprise. For nearly half the distance of nine hundred miles westward from Winnipeg the main line was constructed close to and between the lines of the Canadian Pacific and Canadian Northern Railway Companies. For the remaining thousand miles to Prince Rupert the main line traverses for the most part a difficult country, largely mountainous, whose development for the purpose of furnishing local traffic must await settlement and business enterprise, and terminates at Prince Rupert, a port as yet without any considerable trans-Pacific or other external trade. For two hundred miles or more this section of the main line parallels the line of the Canadian Northern Railway Company so closely that part of the rails of each has been taken up and both railways, now under Government control, use the same tracks. When it is considered that the Grand Trunk Pacific was built for the whole distance of eighteen hundred miles from Winnipeg to Prince Rupert at a very high standard of construction and at enormous cost, particularly in the mountain section, the magnitude of the mistake in going forward with this enterprise is apparent. The branch lines in the Prairie Provinces are wholly inadequate as feeders to the main line, providing a strikingly unfavourable contrast to the number and mileage of the branch lines of both the Canadian Pacific and Canadian Northern Railway Companies in this great traffic-producing area. Part of the Grand Trunk Pacific branch line system is badly situated in territory tributary to its rivals. As a result of the location of its main line and its want of efficient feeders, the Grand Trunk Pacific Railway Company will not share proportionately with its rivals in the traffic which may be expected with the progressive settlement and development of the Prairie Provinces. As to the lease of the Eastern Division of the National Transcontinental Railway which the Grand Trunk Pacific Company was to take after the completion of the Division, I eliminate it from consideration. It was never executed, and as the Government has been operating the Eastern Division the agreement providing for the lease may be regarded as having lapsed and as not imposing further liability upon the Grand Trunk Pacific Railway Company. The financial position of this company since its system was declared open for operation at the close of 1915 may be briefly shown as follows:—

Year	Deficits
1916	$ 1,358,435
1917	5,300,512
1918	6,318,594
1919	11,940,032
1920	23,141,016

These are the deficits after taking into account operating expenses and fixed charges. They with the other evidence as to financial condition show conclusively that the company is bankrupt and that Receivership was unavoidable.

From this it will be seen that the company is quite incapable of meeting its liability upon its issued securities guaranteed by the Grand Trunk Railway Company of Canada. It should be further pointed out that the above figures which are compiled from the books of the company cannot be regarded as accurately reflecting the earnings of the company because of the failure to provide any reserves against maintenance or depreciation. The maintenance charges with which the Grand Trunk Pacific will be confronted during the next ten years will be exceedingly heavy reflecting as they must the wear and tear of the last five years of operation, during which, as construction was recent, the amount of expenditure for maintenance was small. The evidence shows that about twenty million dollars is now required to meet deferred and extraordinary maintenance.

It would be difficult to overstate the serious character of the obligation imposed upon the Grand Trunk by the failure of the Grand Trunk Pacific enterprise to realize the hopes built upon it at its inception. It is quite clear that, whether the war had occurred or not, it would have been utterly impossible for the Grand Trunk to carry the burden of its liability in respect of guarantees upon Grand Trunk Pacific securities. A glance at the earnings of the Grand Trunk for the past ten years makes this evident. That the position was fully understood and appreciated by the management of the Grand Trunk is shown by the letter of the Chairman of the Board, Sir Alfred Smithers, in December, 1915, to Sir Robert Borden, Prime Minister of Canada. The Grand Trunk Pacific Railway undertaking was then about to be taken out of its construction stage. The Chairman in this letter pointed out the situation with which the Grand Trunk would be immediately confronted, and suggested as the only solution that the Government should take over the Grand Trunk Pacific System as from January 1, 1916, relieving the Grand Trunk of all its liabilities in respect thereof and repaying to the Grand Trunk all advances made to the Grand Trunk Pacific Railway Company, the Grand Trunk Pacific Development Company, and its subsidiary companies. Referring to these liabilities, Sir Alfred says: "Under present circumstances it is quite impossible for the Grand Trunk Railway Company to meet the extra liabilities arising from the Grand Trunk Pacific Railway Company." And again: "We have done our utmost to meet the heavy financing which has been necessary and the difficulty of which has been immensely increased by the disastrous war conditions. We are now 'at the end of our tether' with regard to Grand Trunk Pacific financing." The letter of Mr. Chamberlin, President of the Grand Trunk, addressed to the Commission appointed in 1916 to examine into and report upon the Canadian railway situation, is even stronger in its statement of the gravity of the Grand Trunk's position. This letter is dated January 30, 1917, and is filed as Exhibit 458. To the question as to the effect on the Grand Trunk should the operation of the Grand Trunk Pacific be left as it was and the former not relieved from its guarantees, Mr. Chamberlin said: "There can be only one answer; it would mean a Receivership for the Grand Trunk Company carrying with it the destruction of its credit for some time to come and the impairment of the credit of the Dominion."

No other view can, I think, be reasonably taken upon the evidence presented to the Board than that in May, 1920, had the agreement providing for the acquisition of the preference and common shares of the Grand Trunk and for financial assistance by the Government not been entered into, the Grand Trunk Railway Company of Canada, struggling with its own deficits and requirements for deferred maintenance and capital construction and burdened with its heavy annual liabilities in respect of Grand Trunk Pacific securities, must inevitably have gone into Receivership.

During the course of the proceedings it was suggested to the Board by counsel for the Grand Trunk that the Grand Trunk had serious cause for complaint against the Government of Canada in respect of the Grand Trunk Pacific undertaking. Particularly was it urged that the Grand Trunk in 1903 desired to build its western system from North Bay (in Northern Ontario) and acted only from compulsion in proceeding with the National Transcontinental project. It was also complained that after the inauguration of the Grand Trunk Pacific undertaking the Government permitted rival railway companies to construct lines in territory which it traversed. The evidence before the Board disclosed no ground for such complaints. No doubt both the Government of the day and the Grand Trunk authorities were gravely mistaken in 1903 as to the cost and future possibilities of the Transcontinental Railway enterprise. But the Grand Trunk was not obligated to proceed with it. The Agreement providing for the construction and financing of the project was entered into by the Grand Trunk acting under no compulsion. The Grand Trunk Railway Company of Canada was the sole holder of the stock of the Grand Trunk Pacific Railway Company. Any profits from the enterprise would have come into its treasury for the benefit of its shareholders. That high expectations were entertained as to the advantage to be derived by the Grand Trunk from the construction of the National Transcontinental Railway as authorized by Parliament is clear from the optimistic speeches made by the President and General Manager at the meeting of shareholders in 1904, when authorization was given to pledge the credit of the Grand Trunk to the obligations devolving upon it under the Agreement. The evidence shows that the Government not only carried out its financial part of the bargain but during a long course of years afterwards—in fact until the Receivership in 1918—made loans aggregating more than fifty million dollars to the Grand Trunk Pacific Railway Company for the purpose of enabling it to complete its construction and pay its annual deficits. The Agreement for the construction of the Grand Trunk Pacific Railway has been an unfortunate one both for the Government and the Grand Trunk, but it was nevertheless an agreement deliberately entered into by the Grand Trunk in the expectation of gain from a successful project. For the charge that the Government unfairly permitted rival companies to build into territory traversed by the Grand Trunk Pacific there appears not the slightest foundation. On the contrary, the evidence clearly shows that the Grand Trunk Pacific enterprise was launched into territory in the Prairie Provinces already occupied and in process of occupation by the Canadian Pacific and the Canadian Northern Systems, and that, before the Grand Trunk Pacific enterprise was entered upon, express notice in writing had been given to the Grand Trunk by the Canadian Northern Railway Company that it possessed the necessary charter powers and intended to extend its system easterly through Ontario and Quebec and westerly to the Pacific ocean. The Agreement providing for the construction of the Grand Trunk Pacific railway contained no covenant on the part of the Government that no new construction would be authorized by Parliament in the territory traversed by the Grand Trunk Pacific Railway enterprise.

I mention these matters because they appear to have been put forward as raising some equitable claim in favour of the Grand Trunk. It is clear, however, that as no legal claim is involved complaints of this character could not be taken into consideration in these proceedings. The agreement for the construction of the Grand Trunk Pacific undertaking was entered into, the financing therein provided for was carried out, the obligations of the Grand Trunk by way of guarantee upon the securities of the Grand Trunk Pacific Railway Company were incurred and are in effect, and the sole question before the Board is as to the value of the preference and common stock of the Grand Trunk, having regard to all relevant factors, including these obligations, as of May, 1920.

During the course of argument it was suggested by counsel for the Grand Trunk that a sale of the undertaking of the Grand Trunk Pacific might result in a surplus

available in relief of the Grand Trunk in respect of its guarantees. It is clear upon the evidence that the result of no sale, judicial or otherwise, would suffice to produce a sum equal to the charges which have priority over the securities so guaranteed. The guarantees will have to be met according to their terms without hope of abatement from earnings or sale of the Grand Trunk Pacific enterprise.

Apart from its guarantees upon Grand Trunk Pacific securities, the evidence shows that the Grand Trunk is liable upon a guarantee of interest on 4 per cent bonds of the Central Vermont Railway Company to an amount of $13,359,000. Considering the unsatisfactory earnings of the Central Vermont system and its past history, it is impossible to say that no loss will be incurred by the Grand Trunk in respect of this of this guarantee. I do not, however, in this finding, treat this obligation as one upon which loss will be incurred.

Reviewing all the evidence in the case I have reached the following conclusions:—

(1) The actual earning power of the Grand Trunk Railway Company of Canada before, during, and since the war, and, so far as can be estimated, for the future does not justify the assumption that any profits would, from the date of the acquisition by the Government of the preference and common shares, viz., May, 1920, ever have been available for distribution to the holders thereof, after providing for the contingent liability of the company in respect of Grand Trunk Pacific securities guaranteed by the company and dividends upon the "guaranteed stock."

(2) Having regard to its own continuing heavy deficits, the necessity for making provision for deferred and extraordinary maintenance and capital construction, and its heavy liabilities in respect of securities of the Grand Trunk Pacific Railway Company bearing its guarantee, the Grand Trunk Railway Company of Canada, but for the financial support of the Government since May, 1920, must have been forced into a receivership.

Upon these conclusions I find that the preference and common stock of the Grand Trunk Railway Company of Canada has no value. Any question as to compassionate consideration of the shareholders must be for the Government and Parliament of Canada to deal with and not for this Board.

REASONS FOR DISSENT

(BY THE HONOURABLE WILLIAM HOWARD TAFT)

This is a proceeding to determine the value of the First Preference five per cent (5%) stock of the Grand Trunk Railway Company of Canada, amounting in par value to £3,420,000; of the second preference five per cent (5%) stock, amounting to £2,530,000; and of the third preference four per cent (4%) stock, amounting in par value to £7,168,055, and of the common stock of the railway company, amounting in par value to £23,955,437. The proceeding is conducted in accordance with an agreement dated the 8th day of March, 1920, between the Government of Canada and the Grand Trunk Railway Company of Canada, authorized and embodied in enabling and confirming statutes of the Dominion Parliament. The object of the various Acts of Parliament and of the agreement is to transfer to the Government the control of the Grand Trunk Railway of Canada and all the subsidiary corporations over which it exercises control, by reason of ownership of the stock of such companies, or by lease. The names of the companies whose stock thus passes into the control of the Canadian Government are set forth in the agreement and the statute.

As part consideration for the acquisition of the control of the Grand Trunk Company, the Government guarantees the interest upon the present debenture stocks in accordance with their terms, which are as follows:—

Five per cent (5%) Grand Trunk debenture stock..	**£ 4,270,375**
Five per cent (5%) Great Western debenture stock..	**2,723,080**
Four per cent (4%) Grand Trunk debenture stock..	**24,624,455**
Four per cent (4%) Northern debenture stock..	**308,215**
Total..	**£31,926,125**

In addition to this, the Government of Canada agrees to issue new stock of the Grand Trunk Company of a par value of £12,500,000 with a guaranty by the Government of four per cent annual dividend thereon, in exchange for an existing issue of four per cent stock of the same par value, guaranteed by the Grand Trunk Company which is non-cumulative but prior in right to the preferred and common stock already described.

Under the statutes creating the Grand Trunk Railway Company, holders of the debenture stocks and the guaranteed stock had certain voting powers, which under the contract are to cease, so that the voting power is to vest solely in the three preference stocks and the common stoc kto be transferred.

The sixth and eighth clauses of chapter 13 of the 10-11 George V, providing for the present arbitration, are as follows:—

"6. *Submission to Arbitration.*—The value, if any, to the holders thereof, of the preference and common stock shall be determined by a Board of three arbitrators. one to be appointed by the Government, one by the Grand Trunk and the third shall be Sir Walter Cassels, Judge of the Exchequer Court of Canada, who shall be Chairman of the Board. Should Sir Walter Cassels die or be unable to act, the said parties shall agree upon another third arbitrator, who shall be either the then Judge of the Exchequer Court of Canada, or one of the Judges of the Supreme Court of Canada, and who shall likewise be Chairman. Should any vacancy occur in the Board of Arbitrators, other than the third arbitrator, the arbitrator to fill the vacancy shall be appointed in the same way as the arbitrator whose seat has become vacant was appointed.

"8. *Making of Award and Appeals.*—The award shall be made by the arbitrators, or a majority of them, within nine months from the appointment of the arbitrators, or within such further time as the Governor-in-Council may approve. The unanimous award of the arbitrators shall be final, but should the award not be unanimous, and should notice of appeal be given by either party to the other within thirty days after the making of the award, an appeal therefrom upon any question of law shall lie to the Supreme Court of Canada, and or to the Judicial Committee of the Privy Council, if leave be granted by the said committee."

The Board has been constituted in accordance with Section 6. After convening in September and October, 1920, the members of the Board were taken over the main line of the Grand Trunk Railway Company from Montreal to Chicago. They then visited the Pacific Coast and viewed the Grand Trunk Pacific Railway, all of whose capital stock is the property of the Grand Trunk Railway, and control of which would therefore pass to the Government under the present proceeding by the acquisition of the Preferred and Common Stock of the Grand Trunk.

On the 1st of February, 1921, the evidence began, and for seventy-three days we had hearings, resulting in the submission of 8,000 typewritten pages of evidence and over 500 Exhibits. The question to be settled is of a class of questions the most difficult ever presented to a tribunal, to wit, to determine the fair value of a great railway System, with all its accessories and subsidiary companies for the purpose of purchase and sale. In substance, the Government of Canada is taking over the

ownership and control of the whole Grand Trunk Railway System, including all its subsidiary railways and other corporations. The Government in effect agrees to assume,

First, the funded obligations of the Grand Trunk Railway of Canada,

Second, to issue four per cent absolute Government obligations of a par value of £12,500,000, with which to take up the present so-called Guaranteed capital stock of that amount which is prior in right of dividends to all other issues of capital stock, but is dependent on earning and non-cumulative, and

Third, to deliver in the same kind of four per cent obligations, to the owners of the subsequent three Preferred issues of stock and the Common Stock, whatever this Board within the maximum limit of $64,166,666.66 shall determine the stock to be worth.

The Grand Trunk Railway Company was organized under a Canadian Charter in 1852. It was the pioneer railway of Canada. It was financed wholly by British capital, and its Board of Directors have always met in London, and there taken corporate action. The present shareholders are and always have been residents of the British Isles. The shares of stock have been placed upon the London Stock Exchange, and have been dealt in as a speculative stock. The stock was fully paid up in cash. The vicissitudes of the company have been such, however, that in 1860 the enterprise seemed likely to go to the wall, but with concessions made by then boudholders, new capital was secured, and the company set upon its feet again. It constructed or acquired, in the province of Ontario, a great many branch lines. Indeed it purchased competing lines, so that its mileage in that province is greater than that of any other railroad. It owns a line from Windsor, opposite Detroit, to Buffalo, and it has two parallel lines from Toronto to Sarnia. Its main line is a double track line from Montreal through Toronto and Hamilton to Sarnia on the St. Clair River, through a tunnel under that River to Port Huron, and thence to Chicago over the lines of the Grand Trunk Western Company of Michigan, of which the Grand Trunk Company owns all the stock. An important double track connection from Hamilton, on the main line between Sarnia and Toronto, to Suspension Bridge and Buffalo, makes a double track railway trunk line from Chicago east and from Montreal and Toronto south to the Niagara Frontier, whence by the Lehigh Valley, with which the Grand Trunk interchanges traffic, it reaches New York. From Montreal east the Grand Trunk has a line to Quebec, and by a line which the Grand Trunk, at the instance of, and with some pecuniary assistance of, the Canadian Government, built, it reaches Portland, Maine. From Montreal south by some of its subsidiaries, including the Vermont Central, it reaches White River Junction, whence through a connection with the Boston and Maine, it reaches Boston. By the same Central Vermont, it passes through Palmer, Massachusetts, and thence to New London, Connecticut, whence a boat line of the Company carries freight to New York. The Harbour at Portland is open the year round, while the harbours at Montreal and Quebec are closed during the winter season. The Grand Trunk, therefore, has a main trunk line from Chicago through Michigan and Canada to the sea at Montreal, at Quebec, at Portland, at Boston, and at New York, the latter by two routes. With its many branch lines in Ontario and in Michigan, the Grand Trunk connects its lines with the Great Lakes at many points, and operates partly water, partly rail routes from east to west. The Grand Trunk has complete or partial ownership of steamship companies, elevator companies, electric lines, subordinate railway lines, bridge companies, terminal companies, and other corporations owning hotel properties used in connection with the railway system.

The Grand Trunk System, as that term is understand in this case, includes the Grand Trunk Company of Canada, the Western lines, i.e., those of the Grand Trunk Western of Michigan, and the New England Lines, i.e., the lines to Portland. The

Grand Trunk System does not include the Vermont Central, which, though largely owned by the Grand Trunk Railway Company of Canada, is run separately. Its accounts are kept separately.

In 1897 Mr. Charles M. Hays was called from the Wabash Railway System to become the President of the Grand Trunk Railway Company of Canada and the System. He found a railroad at that time which was not well equipped, and could not be considered more than a third-class transportation system. He found a property operated under a Charter which was so drawn as to emphasize the right of the stockholders to have dividends immediately declared out of the net earnings of the company at the end of the year, and was thought to vest no discretion in the Directors to hold the earnings for carrying out broad policies and enlargement of the usefulness and ultimate earning capacity of the company. It is quite evident, from the history before us, that Mr. Hays found it difficult to secure from the shareholders consent to the acquisition of needed additional capital properly to equip and reconstruct the road and to enlarge its transportation capacity. It is further obvious that in his efforts to do this, he increased the operating expenses by including in them outlays in the matter especially of motive power, freight and passenger cars, which should have been properly charged to capital and regarded as a new investment, rather than as current additions to operating cost. In this way, he was enabled to improve the road materially and make it a first-class railroad, without calling upon the stockholders for great additional capital. He thus withheld from them dividends that possibly might have otherwise been declared. From the evidence of Mr. Williams, a very experienced expert in the management and development of railways, now the President of the Delaware and Hudson Canal Company, it is clear that the motive power and the car equipment of the Grand Trunk has been improved and maintained with a minimum charge to capital, and with a very large charge to revenues, and that in the years 1910, 1911, and 1912, the company had been gaining in its capacity for doing the business and in the efficiency of its equipment, and had taken on the character of a great trunk system.

I have been impressed by the number of skilled, loyal, reliable and most experienced employes, the heads of bureaus and departments, who have filled the general offices, and who have been in the employ of the Grand Trunk for many years—indeed, who entered the employ in their youth, and have continued loyal to the company until their maturity and old age. Through a school of apprentices and other methods, an esprit de corps has been acquired that has been very valuable to the company, and it can be stated with confidence that had the policy of the company, as dictated from London, been as prudent, as wise and as effective as the local management through the officers of the Grand Trunk here, the fate of the property would have been different.

The Grand Trunk System has been burdened with a very great number of branch lines, and with some lines parallel to its main trunk line, which it acquired to avoid competition, and which are not a source of profit. Many of the branch lines of course are feeders, but it is quite apparent that they are in some respects a burden. In a degree the same thing has been true of branch lines acquired in Michigan, but the marvellous growth of business in that State in the centres reached by the Grand Trunk is very likely to make them very profitable. With much care and wisdom the business of the Grand Trunk System has been nursed into a large through traffic between Chicago and the Atlantic Seaboard. While the amount of business done in the United States by the Western Lines and the New England Lines of the Grand Trunk System is not more than one-third of the Grand Trunk Railway of Canada, the business which has come to the Grand Trunk is perhaps 70 per cent due to its business from and to the United States, to and from Canada, and to other business from and to points in the United States through Canada to and from other points

in the United States. This main line through business has been encouraged in every way and with much foresight and ability. The road has been maintained so that the immense burden which was thrust on the road during the war times was carried without a break. Of course, the volume of business was temporarily increased by war conditions. Nevertheless, the business of the Grand Trunk has shown a steady increase not alone in its operating revenues, which are often a misleading guide, due to increases in rates, but in its statistics of tons carried per mile.

Mr. Kelley, who is the very able President of the Grand Trunk System, and whose ability has been recognized by his continuance in the management of the road, after its transfer to the Government, testifies that the road is in good operating condition, and that it could, without substantial expense, meet a fifty per cent increase in its business.

One of the advantages which the Grand Trunk enjoys, and it is a real one, is the foresight with which land has been acquired in Chicago, in Detroit, in Toronto, and in Montreal for enlarging the terminal facilities in those cities to meet the growth of business. Of course it will take capital outlay to equip them properly, but the land is there and conveniently situated for the purpose. On the other hand, the Grand Trunk is rather unfortunately situated in respect to grade separations in cities. It has a very valuable entrance to Detroit, and its right-of-way, though at places somewhat narrow, passes through the centre and business part of the city. It crosses a great many streets and there is likely to be a movement to require the Grand Trunk to elevate its tracks and separate its grades from that of the streets. This is a very expensive matter. It is, however, something that it takes a good deal of time to bring a railroad to do, but the railroad must gradually make preparation to meet the expense. There is a similar situation in Montreal. The Bonaventure station is an old structure, and while very conveniently situated in the city, does not offer very ample accommodations. There are many grade crossings in the approach to the station and an agitation has already begun looking to the separation. The company, in anticipation of the necessity, has expended a considerable sum in the purchase of land needed to widen its approaches to the new station. The city itself must contribute part of the amount to be expended and this fact will probably enable the company to postpone the separation for a number of years. In Toronto the case is more urgent and involves a new Union Station which has been built and for which the companies have entered into bond obligations. The station is erected with a view to the elevation of the tracks. The Grand Trunk has already elevated its tracks west of the station, but there is a great deal of work of a similar character to be done to the east, and $4,000,000 has been spent in the new station. A burden of something like ten millions of dollars each threatens the Grand Trunk and the Canadian Pacific in the uncertain future. The entrance to Chicago is over the tracks of the Western Indiana in which the Grand Trunk owns a certain amount of stock. These are elevated. The Grand Trunk has a fractional interest, too, in the Chicago Belt Line, whose tracks are also elevated. But for several miles near the limits of the city, the tracks of the Grand Trunk have grade crossings which are in the uncertain future to be removed by separation, and the city authorities of Chicago are gradually pressing toward this consummation.

A subordinate engineer in charge of grade separations of the company, called by the Government, testified that the expenses of these grade separations, including those of London, Ontario, and South Bend, Indiana, would amount to some $16,000,000. There is no likelihood that either at London, or South Bend, there will be any money spent for such a purpose till the company is quite ready, and yet $13,500,000 are assumed to be needed for those in the next five years. This estimate on the part of this official was a personal one, had never been submitted to his superior officers, and is not one, I think, which we should take as serious. He had made

no calculation or investigation as to how the Grand Trunk would be aided by the New York Central, the Canadian Northern and other roads who must in equity contribute and at least one of which has agreed to do so. This witness himself thought this work might be spread over 20 years. It would not be unreasonable to divide this estimate by two and lengthen the time in which the money would have to be spent.

The physical condition of the railroads in the United States was not improved by the war. The shortage of labour and the very high wages which had to be paid to the labour which could be secured, and its low efficiency, as well as the high cost of material, furnished strong motives for reducing the current maintenance to as low a point as possible, consistent with the safety of the road. Doubtless in this respect the Grand Trunk was no exception. In the restoration of normal conditions, it is natural that maintenance and capital expenditures that often accompany maintenance under such circumstances should be made, but railroads that are not rich will if they are wisely managed do this as gradually and economically as they can, delaying expenditures as far as safety and efficiency will permit, to reach a time of lower prices.

The common stock of the Grand Trunk Railway, amounting, as already stated, to £23,955,437, has never in the history of the road paid a dividend. The first two preference stocks have had full dividends for the calendar years 1910, 1911, 1912, 1913, and 1916. A part dividend was paid on the third preference stock for the same years, except that of 1916. In addition to the interest which the Grand Trunk is legally liable to pay upon debentures, bonds and other kinds of indebtedness of itself and its allied corporations, it has been in the habit of paying the obligations of other companies which it is not legally liable to pay, but which it must pay in order to maintain the unit machine of its system, and which if it is to be preserved in its present earning capacity must be regarded as part of its obligations. The part that this plays in the present issue, I shall consider later on.

THE GRAND TRUNK PACIFIC

The great mistake in the policy of the President and Directors of the Grand Trunk property, which seriously injured the value of the interest of the shareholders of this property, the association of this Grand Trunk System with an enterprise for the construction and operation of the Grand Trunk Pacific Railway Company. This construction was part of a plan of Sir Wilfrid Laurier's Government for a line from the Maritime Provinces and Quebec through the northern part of Ontario to Winnipeg, in Manitoba, called the Transcontinental line, and from Winnipeg to Prince Rupert, called the Grand Trunk Pacific. Mr. Hays, as the President of the road, and Sir Rivers Wilson, as the Chairman of the Board of Directors, entered into an arrangement with the Government for the consummation of this plan. The desire of Mr. Hays and the Grand Trunk Directors was to secure merely a western connection for the Grand Trunk Railway of Canada with the Pacific coast. The Government was not content with this and insisted that there must be linked with this a line east from Quebec directly to Winnipeg. Under the contract and charter, the Government finally agreed to construct the Transcontinental line from Winnipeg to Quebec, while the Grand Trunk Pacific, a newly organized company, all of whose stock was to be owned by the Grand Trunk Railway Company of Canada, was to complete the line to Prince Rupert, a point 450 miles north of Vancouver, in British Columbia, and 450 miles nearer to Yokohama than Vancouver. The agreement provided that after the Government should construct the Transcontinental line to Winnipeg, the Grand Trunk Pacific would operate it and pay a rental yielding to the Government a proper percentage on the amount expended in its con-

struction. The cost of both roads was so much greater than was anticipated that in 1916, when both roads were completed, the Grand Trunk Pacific officials refused to undertake to operate the Transcontinental, and in this refusal the Government acquiesced, and has operated the Transcontinental at heavy losses ever since. The Grand Trunk System did, however, secure connection with the Transcontinental line north of the lakes and thereby entered Winnipeg from the western terminus of the Grand Trunk Railway in Northern Ontario. This made a through Grand Trunk line from Montreal to Winnipeg and by the Grand Trunk Pacific to the Pacific coast. The contract required that the Grand Trunk Pacific should be constructed with the same standard of excellence as that maintained in the Grand Trunk main track between Montreal and Toronto. The result was that the cost of the Grand Trunk Pacific was excessive, as indeed was that of the Transcontinental. The Grand Trunk Pacific line runs through the Yellow Head Pass, along the headwaters of the Fraser river. This is the lowest pass to the Pacific coast either in Canada or the United States, the altitude of the track being not more than 4,000 feet. Except for twenty miles of what is called a pusher grade, where the grade is about one per cent, the grade of the rest of the line does not exceed a half of one per cent. The bridges are of stone and steel. Material for them had to be transported by river and other expensive methods, so that the cost was greatly increased. The well-established and economical method of building such a road is to build pile and wooden bridges, temporary structures, and use them until they cease to be safe, and then to substitute a more permanent material, which can be transported over the lines of the railway at least cost. To secure the low grades of which I have spoken, the immense trestles over ravines in the Prairie Provinces and elsewhere along the line have been constructed with a view to their being filled up with dirt and thus made permanent. It would have been much more economical to begin with less favourable grades and gradually better them as growth of traffic justified it. While the Grand Trunk Pacific was being constructed in the Prairie Provinces of Manitoba, Saskatchewan and Alberta, a number of lines were being gathered together in what was called the Canadian Northern System, under the promotion of railroad contractors McKenzie and Mann. It would have been vastly more economical if the Grand Trunk Pacific and the Canadian Northern could have united in some way under the same management, and not be compelled to divide a country which could not furnish more than enough business to engage the capacity of one line. The managers of the two companies were not able to agree upon terms, and the result has been that the Canadian Northern extended its line to the coast at Vancouver, and parallels through the Prairie Provinces and the Yellow Head Pass for hundreds of miles the Grand Trunk Pacific. Mr. Hay's evident object in carrying his line to Prince Rupert, where there is a good harbour, was to make the system one for Oriental business by steamship lines organized to run from Prince Rupert to Yokahama, but in view of financial straits no such lines have been organized. Of the three more or less parallel lines in the Prairie Provinces, the Canadian Pacific, the Canadian Northern and the Grand Trunk Pacific, the gathering of business depends a good deal upon the character and extent of the branch lines. In this respect, the Grand Trunk Pacific is at a disadvantage. Its branch lines have heavier grades and are less in number and extent than those of the other lines and not so well placed.

The Grand Trunk Pacific has been operated since it opened for business on the first day of January, 1916, at a very heavy loss. It has not paid its operating expenses. The Government aided its construction by guaranteeing the interest due on its debentures issued for its building to the extent of $68,000,000. This issue was followed by an issue of 5 per cent and 4 per cent debentures which the Grand Trunk Railway Company of Canada guaranteed. The Railway's guaranty is absolute to the extent of $2,594,080 annually. Another guaranty is conditional on there being earnings enough to pay dividends on the guaranteed stock, but not on the Preferred

and Common stock. This involves an obligation of $1,395,170 annually. Subsequent Government aid to the Grand Trunk Pacific was given without a guaranty of the Grand Trunk Railway of Canada. The Grand Trunk Railway also advanced large sums to the Grand Trunk Pacific and its subsidiary companies from time to time. The Grand Trunk Pacific Branch Lines Company, a subsidiary company, is thus indebted to the Grand Trunk in the sum of about $11,000,000. The Grand Trunk Pacific Development Company, another subsidiary, is indebted to the mother company in about the same sum, and so is the Grand Trunk Pacific itself in about $267,000.

The drain upon the Grand Trunk Railway Company of Canada began before 1910, with the construction of the road, but it became heavier as the expenses of construction grew until it reached the proportions mentioned. During the years 1912, 1913, 1914 and 1915, before the Grand Trunk Pacific opened for business, and while it was still receiving the proceeds of the bonds issued for its construction, it was able to pay interest to the Grand Trunk Railway of Canada upon advances made, and indeed to repay out of the proceeds of those loans, much of the money advanced directly to the Grand Trunk Pacific by the Grand Trunk Railway of Canada. Nevertheless the net result has been the draining of the resources of the mother company to the extent of $22,000,000, half of which is certainly entirely lost, and can never be recovered, and the other half, that due from the Grand Trunk Development Company, may be paid ultimately, but it must be by way of salvage realized from the sales of a receiver who now holds it. The balance sheet presented on behalf of the Company of the operations of the Grand Trunk Pacific Railway System shows a deficit, after operating from the first of January, 1916, to the first of January, 1920, of $30,845,828. Early in the year 1919, the President of the Grand Trunk Railway Company of Canada and of the Grand Trunk Pacific Railway Company notified the Government that the Grand Trunk Pacific could no longer continue to operate. The result was the taking over of the Grand Trunk Pacific as a war measure by the Government Receiver. The deficit up to the time of the receivership was $21,415,948. After the receivership, and down to the first of January, 1920, it was increased by $9,429,879. The net loss from rail operations, leaving out taxes, and including only railway operating revenues and railway operating expenses, from the inception of operations to December 31, 1919, three full years, was $10,269,172. Between the first of January, 1916, and the first of January, 1920, the business of the Company, instead of increasing, decreased. It may be that the line of railway will ultimately become a valuable one. It is quite probable that the Prairie Provinces, which are so rich in the production of wheat and other cereals, and British Columbia near the line of the Grand Trunk Pacific, with its coal resources, and a steamship line to the Orient when established, may ultimately furnish large revenues to this trunk line. It is certain, however, that it will need much additional capital and a good many years' development to create a business that will make it profitable, and that if the railroad is to be maintained, it will need a very heavy maintenance fund to keep it in proper condition.

The Grand Trunk Company owning all the stock of the Pacific road abandoned it to the Government. The Government alone could take it over. They were the guarantor or owner of $68,000,000 of its first obligations.

We cannot in this proceeding, it seems to me, attribute to the shares which the Grand Trunk Company holds in the Grand Trunk Pacific Company any value at all. The absolute guaranty, $2,594,080, is reduced by $301,320, which is the amount of annual interest due on the bonds of what is called the Lake Superior Line. This has been leased to the Government at a rental of $600,000, and the rental makes complete provision for the payment of the guaranteed interest. This leaves the absolute guaranty at $2,292,760, and the conditional guaranty at $1,395,170, not obligatory unless net earnings of the Grand Trunk Railway, the guarantor, permit

its payment after the meeting of all running expenses, interest on funded obligations and the dividend on its guaranteed stock.

Mr. Atwater argued strongly for the shareholders that something might now be realized out of a sale of the Grand Trunk Pacific to reduce the liability of the Grand Trunk Railway Company of Canada on its guaranty. I have considered this matter with care, but I can not for the life of me see any hope that by a sale of the Grand Trunk Pacific's property, a sum could be realized that would more than satisfy the first lien of the receiver's debts, which have now become $9,000,000, and the prior debentures amounting to $38,000,000 guaranteed by the Government.

In addition to the $30,000,000 deficit in three years already referred to, Mr. Sullivan, a witness for the Government, and an able practical engineer, one who had served upon the Canadian Pacific and other roads, and is very familiar with the engineering problems and expense of that region, including the Prairie Provinces and the Pacific Coast, gives an estimate of twenty-four millions of money needed in the near future to keep the Grand Trunk Pacific in proper condition. A stage is rapidly approaching when the wooden structures used to maintain the grade in the form of trestles must be by fills which are very expensive, or by steel structures. Then for two hundred miles, in descending to the Pacific Coast, there are constant slides which promise to entail a very heavy expense in repairing them. Mr. Berry, who testified for the Grand Trunk in this matter, emphasized the difficulties and expense growing out of these slides and substantially agrees with Mr. Sullivan in his evidence as to needed fills and the short lives of these great trestles and the unwise policy in the road's too perfect construction by which its cost was greatly and unnecessarily increased.

The association of the Grank Trunk Railway Company with the Grank Trunk Pacific and the Transcontinental, is the tragic part of the story of the Grand Trunk Railway of Canada, whose history, in spite of certain indefensible acts of its London management, to which I shall refer later, is one which should arouse the gratitude of the people of Canada for the benefit which has come to them in the development of their country through the agency of this pioneer system of railways. Canada is so situated that the construction of railways with Government aid has been a political and economic necessity. It is a country four thousand miles from sea to sea, and so far as its settled portion is concerned, not more than 400 or 500 miles from north to south. Its far northwest will doubtless acquire inhabitants in the future, for it shows a surprising possibility in productiveness due to the climatic influence of the Pacific. For the present, however, the territory in which railways can find or develop business is a more or less narrow strip of settled and civilized country from east to west, with a barren interval from North Bay to Winnipeg, which is not a source of useful products, but must be traversed in order to reach from the east to the Prairie country and to the Pacific.

It was made a part of the condition of the union, embodied in the British North America Act, that Quebec and Ontario should be united by Railway with the Maritime Provinces and the Government was obliged therefore, as a political necessity, to build, construct, own and operate at a loss the then called Intercolonial Railway.

A condition of the coming into the Dominion of British Columbia was an agreement that a railroad should be constructed uniting the Pacific Coast with the eastern provinces of Canada. This had to be done and was done by private enterprise, reinforced by very large contributions from the Government. The history of the Canadian Pacific and its present wonderful prosperity finds something of its explanation in the fact that the Government contributed very largely to its construction in actual outlay and the actual building of important parts of the road, and also in its land grants. These have enabled the company to maintain a very low capitalization in its bonds and stocks, and therefore to earn

substantially a constant dividend on its capital stock, perhaps a certain and as ample as that of any railroad on the continent.

The Canadian Northern, too, has had very extensive government aid, even greater in proportion than that of the Canadian Pacific. The Grand Trunk Railway Company of Canada, which was much earlier in the field, and offered the opportunity to Ontario and the western part of Quebec to develop prosperously, has had comparatively little assistance.

All these circumstances should challenge, on the part of those who are called upon to do justice to non-resident shareholders, the closest attention to the pleas made in their behalf and to the exercise of a spirit of equity in dealing with their interests, which are now to be ended in this enterprise and are to be compensated for by our adjudication and award.

It was for this reason, among others, that it seemed to me a proper course to allow the company and the shareholders to offer in evidence proof of the reproduction value of the whole Grand Trunk Railway System and of what is called the physical value of the property as distinguished from the reproduction value. This would not be fore the purpose of compelling the Government to pay the reproduction or actual value of the physical property, but only to enable us to use the value as a circumstance in judging its future and potential net earning capacity. Such evidence is held in the United States to be competent and relevant in adjudging what a railway company should earn and therefore to fix its rates. With conditions so much the same in both countries and in respect to a railway like the Grand Trunk, seventy per cent of whose rate receipts are directly affected by rates in the United States, it would seem proper to adopt the same rule of evidence.

In a similar proceeding by the Government taking over the Canadian Northern, through a Board of Arbitration, at the head of which was the Chief Justice of Ontario, received evidence of the reproduction value and acted on it in their award. The Government filed there a formal objection but did not press it and the evidence went in. Evidence of this kind here produced might have materially affected the opinion which the Board would form of the earning capacity of the road and its future possibilities, especially in view of the fact that the tendency of railway legislation in the United States, as shown by the last United States Transportation Act, is toward making the reproduction value of railroad property used economically for transportation a proper basis for fixing rates. The ruling of the majority of this Board, however, has been against receiving such evidence. Bowing to that decision, it becomes my duty, as a member of the Board, to fix the value of this stock without the aid of such evidence.

One of the great issues made in the case is as to the physical condition of the road and the system for operation. The Government has been at great pains to point out the defects of the road and the failure of the company to expend the needed funds for current maintenance of bridges, rails, ties, ballast, the motive power, including locomotives, freight and passenger cars. On the other hand the counsel for the shareholders insist that the history of the road and its achievements during the war and under the stress of greatly increased traffic, is an indication that it is safe and one hundred per cent efficient—that one must judge of a road by the work it does and if the freight is carried and the passengers are carried without accident or loss for years, and the duty of the common carrier is thus discharged, and the equipment of the road is kept up to such a point that the work to be done is done, it can not be said that the road is suffering from any great deferred maintenance.

The chief witness for the company was Mr. John B. Berry, a railway engineer who has had a long experience in the engineering department of the Chicago and Northwestern Railway Company, a most important and extended system, and thereafter

Chief Engineer under Mr. Harriman in the great reconstruction of the Union Pacific Railway Company, and then for six or seven years the Chief Engineer of the Chicago, Rock Island and Pacific Company. Mr. Berry is a man of the highest standing in the railway engineering profession. He may be looked upon perhaps as the "dean" of that particular branch of his profession. He is a man evidently of solid character and of strong opinions which he does not change at the suggestion of counsel, either of those who call him or those who cross-examine him. He has visited the principal lines of the Grand Trunk Railway of Canada many times and the properties of all its subordinate companies, as well as those of the Grand Trunk Pacific. He examined the records of the properties of the company before he made his inspection, made up his mind as to the bridges and places on the road at which he would stop, and give close inspection. He noted the condition of the rails, of the ballast and of the ties from an inspection car placed in front of a locomotive which ran some 15 miles an hour, and which stopped wherever he indicated his wish to do so. He made notes of his examination and reported what he saw as either "good," "fair" or "poor." "Good" meant a high standard, "fair" meant something that would last for four or five years but would then need to be replaced, and "poor" something that ought to be replaced in the near future. He did not make an inspection with a view of reporting on the cost of making the repairs that might be needed, but he made a report as an experienced engineer would make it, in giving to one considering the question of purchasing the property, a satisfactory knowledge of the condition and the value of the road. In fact he did prepare a report of its reproduction value, less depreciation, though he was not allowed to put it in evidence. He made this report with full appreciation of the judgment that those who engage in the actual economical operation and maintenance of the road with limited resources must exercise, in determining the amount of current repairs and maintenance that should be made to keep in good operating condition. Mr. Berry's evidence is that the railroad does not show deferred maintenance but on the whole is in excellent condition.

The Department of Railways and Canals of the Canadian Government, on the other hand, sent out a force of men to make minute examination of every part of the road and to report on every deficiency which they could see, with a view of estimating what it would take to repair and equip the road according to a standard not affected by a limitation of means, but with the backing of a government treasury, and with a knowledge that the report was to be used in depreciation of the value of the road to be bought. I have no criticism to make upon the witnesses for the Government except to say that there was on the part of Colonel Monsarrat, who reported upon the bridges, and the others who reported on the maintenance of way, an enthusiasm of condemnation that rather injured the weight of what they had to say, with me. Colonel Monsarrat's evidence was so rebutted by the evidence of those who were in constant charge of the work that he criticized as to give me the impression that he was calculating the cost of producing a perfect road without regard to economical considerations. His severe cricicism of bridges which in the growth of business had grown too light for the traffic, and had been strengthened by the use of wooden or pile bents, seemed to me to be unjustified, and I must agree with Mr. Berry's criticism and with that of counsel for the shareholders that upon lines where the traffic is light, where the profit from the operation is small, if any, but which must be maintained, the use of pile bents to continue the life of bridges is much wiser than the expenditure of a large amount for new steel structures when the bridges thus reinforced will last for several years and be entirely safe, and this however much they may offend the eye of an engineer who insists on new and good-looking bridges everywhere. The tone of Colonel Monsarrat's statements as to the bridges was likely to give the impression that the condition in many instances are

dangerous, and yet the fact is that the road has been operated under the same conditions for a number of years with complete safety, with these bridges always under observation, and with an accurate knowledge by the men in charge of the status of each bridge and any change therein for years.

It may seem an anomaly to criticise the reports of witnesses in respect to the condition of the railroad as too minute and meticulous, and yet the criticism is not without justice. It reflects the purpose to dwell on small deficiencies, to insist on perfect reparation of them when a reasonable economic policy would lead to a less expensive method by which complete safety and effectiveness can be secured without a large outlay for some years, until a time of cheaper construction and easier money. Thus a recommendation that great grain elevators made of wood and reasonably effective for their purpose for years to come should be torn down and new elevators put up of reinforced concrete, made by a witness for the Government, seems to me quite unreasonable, and this even though the insurance of grain when warehoused in wooden elevators is greater than that in a concrete warehouse. The record shows that there are many, many wooden elevators in active and profitable use, and the mere fact that when new elevators are built now they are built of concrete does not justify a policy of pulling down perfectly good elevators made of wood. The reason for constructing concrete elevators now is not due solely to a desire to reduce danger of fire but also because of the very high cost of timber.

I do not wish to impeach the veracity or professional skill of the Government experts on this issue of the condition of the road and the needed capital and maintenance expenditures. If the Government wishes to adopt the policy of putting the railroad in pluperfect condition and reduce further maintenance to a minimum for a series of years, and to make these expenditures now when the cost of everything is much higher than it is likely to be, that is a matter of policy with which we here have nothing to do. But when evidence of such cost is used to show how impossible it would be for the Grand Trunk to avoid heavy and overwhelming deficits in the near future and thus destroy all potential value of the stock of the Preferred and Common stock shareholders, I feel that I should doubt its weight for that purpose. In order to put the Grand Trunk System into proper condition, the sum of the estimates of these Government experts is that it would cost the Company in five years seventy-four millions of dollars, of which forty-four millions would be non-remunerative capital, $8,700,000 would be remunerative capital, and $21,881,010 deferred and extraordinary maintenance. When the badget was prepared by the officers of the company to be presented to Parliament for a vote of the budget of the year of money to be paid out by the Company under the operation of the Company for fifteen months, ending March 31, 1922, the amount of it was $44,000,000. The Department of Railways directed that the budget be returned and that it be increased to $89,000,000 which was accordingly done by order. One of the chief differences was an additional sum of $16,000,00 for capital and other expenditures for maintenance. As recommended by the Government experts, the officers of the Company charged with the safe and efficient operation of the railway system did not deem such a sum necessary at this time.

The counsel for the Government press upon the Board, as corroborating their witnesses as to needed capital and maintenance, a report made by Howard G. Kelley early in 1917. Mr. Kelley, now the President of the Grand Trunk, was then the Chief Engineer of the system. At that time the President, Mr. Chamberlin, and London management of the company were seeking to induce the Canadian Government to take off their backs the burden of their Grand Trunk Pacific investment and to restore to them the moneys which the Grand Trunk had put into the Grand Trunk Pacific enterprise. They were anxious to make a showing of poverty on the part of the Grand Trunk

Railway of Canada, and of the impossibility of its continuing if loaded down with the Grand Trunk Pacific. They therefore understated their actual revenues in their published reports by some millions. This is the contention of counsel for the Government, which is not disputed. Their President, Mr. Chamberlin, testified to the Railway Commission, appointed for the purpose of investigating the Grand Trunk and the other railways of Canada, and the then condition of the Grand Trunk in the matter of maintenance, and greatly emphasized it. At that time, as a matter of fact, and by the admission of Mr. Kelley on the stand in the present case, the maintenance had run down because of war conditions, and the difficulty of securing labour and material. Mr. Kelley, as Chief Engineer, and under the instructions of his superior officers, thereupon made a report upon the needed expenditure capital and current for the purpose of putting the Grand Trunk into a proper condition. It is manifest, from the report itself, as well as from the circumstances, that by direction of his chiefs he prepared this report in accordance with the standard of the same kind of perfection as that which Colonel Montserrat and his follow witnesses for the Government have prepared their report in the present case. He laid down a measure for the renewal of rails and of other equipment which considerably exceeds in its requirements even those of the Government witnesses. He was not then President of the road—he was merely the Chief Engineer acting under the directions of his superior officers and using that discretionary judgment that may have a very wide range in stating a *de luxe* estimate of needed expenditures and needed maintenance. Since that time in the years 1918, 1919 and 1920 a very large amount of money —forty-seven millions—has been spent in putting the Grand Trunk Railway into better condition after the war. Mr. Kelley has been on the stand and testified at great length as to the present satisfactory condition of the road for the efficient discharge of the duties of the railway company. He has told of the heavy traffic that is carried on during the war, and he speaks with confidence of its condition with which he is most familiar, and of its capacity to do a much larger business than it now does, without any extensive additions in the matter of capital and maintenance. Counsel for the Government were at liberty to cross-examine Mr. Kelley by reference to his report as Chief Engineer and thus call from him an explanation of the difference between his present statement as to the condition of the road and his report of 1917. Instead of this, they put in his report without any further cross-examination of him. It is suggested that counsel for the company have said htat they were going to reproduce him on the stand with reference to deferred maintenance. Counsel for the company say that they did not carry out their purpose because of the ruling of the Board as to incompetency of the evidence as to value. It is only sufficient to say that if the Government counsel had desired, Mr. Kelley was available for cross-examination after the introduction of his report, but he was not recalled for that purpose. We are left, therefore, with his statement in chief, his explanation of the present condition of the road when he speaks as the responsible President of it, and with this earlier report of his in 1917, made under instructions and under the circumstances which I have already described. In order to make up for the condition in which the war had left this railroad, as it had all other roads, the management of the company had spent large sums for maintenance amounting in 1918 to nearly 12 millions, in 1919 to 17 millions and in 1920 to 18 millions, and it is insisted by counsel for the company, and testified by Mr. Kelley, Mr. Berry, and the company's officials in immediate charge, that this sum put the road in as good condition as any road in the country, and that such capital expenditures as the Government urges as indispensably necessary are not so.

I should observe at this time that while the date, May 21, 1920, is the day when the stock is deemed under the contract to have passed to the Government, although the shareholders through representation in the Committee of Management still retained

some control until June, 1921, evidence as to money spent in the improvement of the road after that date, out of the income from the road, is not rendered irrelevant. More than this, there is evidence that ties and rails had been bought by the company before the date of transfer, which were subsequently put in place. One can not strike a balance as of a day like the 21st of May. We must consider a railroad by years. Its accounts require it. It is a going concern and must be so considered and treated in its condition and valuation. It is fair, therefore, for purpose of determining the kind of railroad in which the Government is acquiring stock control by the purchase to bring the condition of the road down to the end of 1920.

It will be observed that the $74,000,000 of the total proposed by the Government for the years 1920 to 1926, includes $13,000,000 for the grade separations, already referred to. This is to be done in five years when even the witness upon whom reliance is had for this estimate expressed the opinion that it would be twenty years before the railway would be obliged to meet the full weight of such a burden. Such an item does not lend force to the exhibit as a whole. It does tend to make it especially persuasive in trying to estimate what the Grand Trunk Railway, if left in possession, would have to spend wisely and economically to keep its railway system up to do its public work safely and efficiently. These large sums are then introduced into the future estimated accounts of the company and pile up the fixed charges of the company so as to increase them some seven millions by 1925, which would preclude all possibility of dividends on the preferred stock. In other words, it is proposed to put a seventy-five million mortgage on the Grand Trunk property now as essential, with the result that the shareholders' interest disappears under the increased annual charges. I must feel that the evidence of the witnesses tor the company is more weighty upon the point here in issue, namely what would a reasonable, economical owner of the railway have been able to work out for his shareholders in the next few years after having operated the railroad sufficiently and economically and safely, and having paid the fixed charges. My point is that the witnesses for the Government have directed their evidence to the cost of a policy in dealing with the railroad, which is not one which a private owner with the limitations upon his expenditures, not mandatory upon a great Government, would pursue.

Mr. Butler and Mr. Tilley have urged, with great force and ability, the view that the road can not be in good condition now because the Company did not pursue a proper course in setting aside a sum each year for maintenance to meet the depreciation that time necessarily brings. Mr. Butler referred to a direction of the Interstate Commerce Commission as to a head for depreciation in its classification of accounts to be kept and reported, a rule which the Canadian Railway Commission has not yet adopted, and which indeed is not fully in force and hardly more than recommended by the Interstate Commerce Commission itself. Cases have been referred to in which the Supreme Court of the United States and Sir George Jessel, the Master of Rolls, have emphasized the duty of directors of a company to make provision for repairs and maintenance and necessary renewals and not to declare dividends out of the gross earnings when nothing has been set aside for these purposes. There is no doubt about this principle, but we are not here for the purpose of determining whether the dividends which were declared should not have been declared, any more than we are for the purpose of punishing the directors for juggling with their accounts. We are here for the purpose of determining what the real interest, if any, in this railroad property the shareholders have, and what value, if any, it has. We are interested in the actual condition of the property, and while it is true that rules as to what ought to be done with reference to maintenance, in the view of an expert Commission like the Interstate Commerce Commission, and the failure to comply with their judgment in that respect may have a tendency to show that the road in question is not in proper condition, direct evidence as to its condition is more

weighty, and the old argument that "proof of the pudding is in the eating," has application. However faulty the managers of the road may have been in not establishing a depreciation reserve and in not at different times spending it as such, the fact remains that through the critical period of 1916, 1917, 1918, 1919 and 1920, this Grand Trunk System did an enormous work and never failed to meet the very exigent requirements of the Government in its transportation of the things which were so much needed to win the war. Moreover, it is true that however improper the motive for the establishment of an audit office account, the result of it was to furnish in 1919 and 1920, a large reserve fund to expend on the property by way of maintenance and renewals. No evidence has been offered to rebut the statement of Mr. Williams that in the earlier years a large amount of what might properly have been charged to capital investment was taken from the earnings of the road to keep up the motive power, the locomotives and the cars, and, as already pointed out, there is substantially no evidence to show that the cars and locomotives now owned by the Company are not ample for all the business that it is already doing or is likely to do.

The operating efficiency of the railroad can not be denied. The Company is to-day and has been for years last past, operating fast trains, numerous trains and heavy trains, the trains are making schedule time and there are substantially no accidents. Although these operations and the records of the Company have been completely under the scrutinizing and critical eye of government experts, no evidence has been adduced to rebut this. No attack has been made upon the tractive power of the Company. Several competent witnesses, after close inspection, have testified to proves it. The same thing is true of the freight and passenger and other cars. The shops and round houses, except in a few spots of comparative unimits completeness and effectiveness for the purpose and the work it has done portance, which can be remedied by very moderate expenditure, are in first class condition. As to the ties, the question is a matter of wise judgment. Mr. Berry's long experience and close examination of the records of the operation of the road enabled him to fix a proper standard of annual tie renewal at 2,000,000 a year, or 264 ties to a mile and the railway records show that taking one year with another, the renewals, including 1919 and 1920, have averaged 265 a mile a year. In respect to rails the showing is not so good because it was impossible to secure suitable rails during the war, and still more difficult to get the labor properly to replace them. The standard set by the Grand Trunk for its main double track from Montreal to Chicago and the New York territory has been one hundred pound rail, and much more than three fourths of it is of that weight. It could only secure under government limitation during the war period, 85 pound rail. During 1919 and 1920, a large amount of new 100 pound rail was purchased and put in the year following, considerably more than average yearly renewal. Mr. Robb says that more rail was put in the road in those years than in any year since 1907 and 1910. From Mr. Phippen's reference to the exhibits it appears that with the exception of grade separations, docks and wharves and elevators, the amount recommended for 1920 for maintenance, including bridges, rails, ties, ballast, etc., by the Government experts was $15,901,000, while the Company actually spent in that year $15.226,000 on the same things. It is true that Mr. Butler remarked that his witness advised him that the two did not cover all of the same things and that there was 7 millions in which they did not overlap, but this has not been explained.

I have already spoken of grade separations and elevators.

In reference to docks and wharves, a word is proper. These docks and wharves upon which Government witnesses insist much should be spent, are most of them at the termini of branch lines of the Grand Trunk where the business is very light indeed and unprofitable and in respect to which a policy of the severest economy consistent

with safety is the one on the basis of which we must place our judgment and estimates, and not one of expensive renewals or complete rebuilding.

On the whole evidence, when the fact as to what the great system is doing and has done for a long series of years, is considered, I can not bring myself to credit an unfavourable and condemnatory description of the condition of this old and settled railroad property, that would require for its continued practical operation for useful public purposes, an investment of what is equivalent to form seventy-five millions of new capital. We must, I think, resort to other means of judging the requirements of the situation.

I do not deny that the government plan of advancing large amounts of capital at the present time to improve the road and reduce the expense of maintenance in the future may be the wise course for the Government to pursue in carrying out its purpose in establishing the Grand Trunk System under government ownership. It is not, however, the most economical at such a time as this. Such a policy by Mr. Harriman in the reconstruction of the Union Pacific has proven itself to be wise, but a policy like this can only be carried out by those who are willing to wait decades for results in the form of net earnings and who have the financial ability to meet the immediate expense and delay returns for a considerable period. That is not a policy which can be used as a guide in a case like this to determine what the value of shares of stock are in earning dividends within a reasonable short time. It sacrifices much of railroad property capable of further profitable use, and if the stockholders had retained their interest, it would ignore their right to the most economical performance of the railway's public duties consistent with public safety and efficiency.

In a case like this, it is perfectly natural that witnesses should have a leaning toward the side which calls them, with a knowledge of the purpose for which they are called, and the Board must weigh the evidence in the light of the circumstances and attempt to reach in its judgment the probable fact. My own judgment is that the actual facts lie between the views of the opposing witnesses and that while there is a necessity for better maintenance in the Grand Trunk System which may delay somewhat a return to a normal net operating percentage, after the strain of the war, the reports of the governmental engineers are quite excessive. They pile Pelion on Ossa.

We come now to the principal and ultimate question of the case upon which what I have been discussing has a bearing. That question is what we may reasonably anticipate as the net earnings of the three Preferred stocks and the Common stock within such a time that an intending purchaser would be practically affected in the price he would pay for them.

In presenting to the court the various elements of value of the Grand Trunk road, Mr. Phippen first dwelt upon certain properties which he denominated as "frozen assets." He considered that they amounted in ultimate realizable value to $25,000,000 or more. The first of these was the property of the Southern New England Railroad Company, a railroad projected and partly built between Palmer, Massachusetts, and Providence, Rhode Island. This railroad was begun by the Central Vermont and the expenditure was made by it of $7,000,000 loaned for the purpose in 1911 by the Grand Trunk Company without interest. The right of way has been purchased and a good deal of the grading has been done, but it would take some $7,000,000 more to finish it. It is a railroad which if built would give access to Providence, Rhode Island, to the Grand Trunk System and would bring that system into a territory in Massachusetts, Connecticut and Rhode Island, which is a hive of industry, and would doubtless be a source of much increased business for west bound traffic over the Grand Trunk lines. Mr. Kelley does not recommend the investment of any further money in the completion of the railway until times change and prices fall, but his judgment is that in the future it will be wise to com-

plete the road, and that the road will become a profitable feeder for the system. It seems to me that the road may be made profitable some years hence.

The Jacques-Cartier Railway running around the mountain of Montreal to connect the main line of the Grand Trunk with the territory east of Montreal to the river is another unfinished investment that brings in now nothing but obligations in the form of taxes. How valuable this may prove to be in the future is a matter of speculation and upon which we have no means of judging except by the cost of it, which was $1,600,00.

The next item in this list of "frozen assets" is the indebtedness of the Grand Trunk Pacific Development Company to the Grand Trunk Railway of Canada. This indebtedness grew out of advances made by the latter company to this Development Company to enable it to carry on the business of assisting the Grand Trunk Pacific Company in its building and operation. It owns steamship companies, dock companies, hotel companies and a good deal of land for sale. It has not paid a dividend because from much of its property it is not expected to secure a regular income but merely to develop it and then sell it and divide the proceeds. It owes $11,000,000 to the Grand Trunk Railway of Canada, and $2,000,000 to the Grand Trunk Pacific Company. It was taken possession of by the receiver whom the Government put in charge of the Grand Trunk Pacific Company. The Grand Trunk counsel insist that this is a breach of the rights of the Development Company because it was not insolvent and the Grand Trunk was its largest creditor. We have not had specific evidence adduced before us as to the value of the properties which it holds. There is $3,000,000 outstanding in payments due upon lands sold, and there are two large fine hotels, the Fort Garry Hotel at Winnipeg, and the McDonald Hotel at Edmonton, which cost millions, and are valuable and likely to be profitable. The assets of the Development Company, as shown by its books, amount to $12,536,324, as follows:—

Hotel property	$5,719,108
Wharves and docks	3,859,624
Steamships	1,273,135
Company holdlings	7,719
Gravel lands	37,236
Terminal lands	292,745
Rights of way	3,932
Mortgages on employees' houses	11,135
Cost of farm lands	1,331,690
	$12,536,324

They indicate a very considerable salvage in the claim for $11,000,000 which the Grand Trunk has against the Development Company when the other debts are only two millions.

The fire insurance fund accumulated by the Grand Trunk of more than a million dollars, in order to do its own insurance, would seem to be worth its face in that it saves the Grand Trunk from the annual payment of a very considerable amount for current insurance and this reduces its operating expenses. Another fund of a similar character is the compensation fund of $350,000 which adds value to the Grand Trunk Railway Company certainly to the amount of its face, by reason of offering indemnity against claims for damages for injuries that are a constant source of expense.

The next item is the investment of some $2,000,000 in the Montreal and Southern Counties Railway. The operation of this railway has resulted at times and for some years in the earning of a small surplus over and above expenses. For the last three or four years, however, there has been a deficit of about the same amount each year. The Grand Trunk has $340,000 of the stock, with $100,000 held by the public, and in addition the Grand Trunk has $500,000 of the stock issued or to be issued to reduce its indebtedness. I was much impressed by the evidence that this company will in a

few years become a paying investment. It serves a series of rapidly growing suburban towns south of the St. Lawrence river within easy reach of Montreal, not only for commuters but also for the carriage of milk and for express and other freight. It has not made any provision for depreciation and may need further capital to confirm its success, but I have a strong feeling that the property is one which will turn out to be profitable.

The Rail and River Coal Company owns 30,000 acres of coal land in southeastern Ohio. The coal is of the Pittsburg vein and is excellent steaming coal. The value of the property is estimated by Mr. Walter Kelley, the Superintendent of the Mines, as worth $12,000,000. An estimate by an expert connected with the geological department of Ohio was $8,000,000. These views were contradicted by a witness of some experience in coal lands, but who it seems to me did not qualify himself as the other witnesses were qualified. It is quite certain that the mining plant is well managed and is well equipped with the best modern machinery, that a very considerable amount of money has been expended in perfecting it, and that an adequate depreciation fund is provided. It is also clear that a good deal of the unused land has a definite market value per acre. Of course the value of the property will be much affected by the general situation of the coal market, questions of strikes and otherwise, but in this proceeding when the value must be fixed, we must assume a return to normal conditions and a demand for coal which the resumption of business will certainly create. I am inclined to think that the estimate of Professor Ray as to the value of the mines and property of this company was not in excess of its real value now that the mines can be economically operated with the best machinery and the surplus lands can be disposed of with reasonable care and discretion. To put therefore the unused land in among the frozen assets at a figure of $3,000,000 would be fair, leaving the full amount of land for years to come for mining purposes still in the possession of the Rail and River Coal Company.

A question has arisen over the title to the stock of the Rail and River Coal Company and a good deal of evidence is submitted. This has given me no difficulty. The argument of Mr. Lafleur upon this head is entirely satisfactory and convincing. The history shortly stated is this: Mr. Hayes became convinced that it would be wise to acquire this coal property to be used in connection with the operation of the Grand Trunk Railway in furnishing at a low cost good steaming coal for that part of the railroad that could be reached by a reasonably short haul. He was anxious to acquire it, but he could not induce the Board of Directors to take over the property to the Grand Trunk road chiefly for the reason they were advised that the charter of the Grand Trunk would not permit it to operate a coal mine. Moreover, there was fear that the commodity clause of the Interstate Commerce Act would forbid a railroad from owing a mine for such pupose. As a matter of fact, neither of the objections proved sound. However, the property was taken over in the name of the Development Company and contracts were formally made with the Grand Trunk Railway for the delivery of coal. The money for the purchase price was paid by the Grand Trunk Railway of Canada, and notes were given to the Grand Trunk Company for this. While the Directors were thus loath to assume the ownership the property was carried in what was really a state of suspense as to the title for several years. In spite of a good many formalities inconsistent with the real fact, it seems to me that the truth was that Mr. Hayes and those in charge always considered that this property belonged to the Grand Trunk Railway Company, which had paid for it, and were only waiting until the unfounded fears of *ultra vires* on the part of the directors of the Grand Trunk road were removed before vesting the title to the stock formally in the Grand Trunk Company. Some two years before the initiation of the receivership of the Grand Trunk Pacific Railway Company, which embraced that of the Development Company, the Grand Trunk directors gave authority to the officers

of the Company to take over to the Company the stock of the Coal Company. This authority was not formally exercised until just before the receivership. It is said that this formal transfer, effected just before the receivership, was a fraud upon the creditors of the Development Company. As the Grand Trunk is the only creditor of the Development Company, except the Grand Trunk Pacific Company, the debt to the former being eleven million and to the latter two millions, the motive for the fraud is not apparent. In fact, the transfer was in my judgment nothing but the commendable formal execution of either a resulting or an express trust. The mines are a valuable adjunct in the operation of the Grand Trunk Railway. All of the land is not needed and a part might well be sold. In the estimate of frozen assets, it would not be unfair to put this extra coal land in at three millions of dollars. The last of these assets is the amount of land purchased by the Grand Trunk in Montreal for enlargement of the approaches to the Bonaventure station in Montreal, the original cost of which Mr. Phippen doubtingly estimated at half a million, but the interest charged to the purchases indicates that it was about three millions. It will be available for use in grade separations and establishing new terminals in Montreal. Mr. Phippen's claim is that these frozen assets at a fair estimate are worth $25,000,000. It is possible that this is too rosy a view of what their value is, but certainly I should think that $20,000,000 could be realized from them in the course of the next ten years, and that they may be regarded as an offset to the amount of money likely to be imposed as an obligation upon the Grand Trunk System for grade separations in Toronto and Montreal, Detroit, and Chicago in that time.

Counsel for the shareholders have urged three different ways of proving that in the near future enough may be earned by the company to pay all that the contract and statute permits the Board to award to these stockholders.

The first agreement is based upon quotations taken from the London Stock Exchange and covering some four or five years, ending with 1913. In the discussion of the competency of evidence as to reproduction and physical value, I said that in my opinion little or no weight should be given to quotations on the Stock Exchange, especially where the stock has speculative value, as this seems to have had. Where the question is between one who has bought and one who has sold, and of damages for a breach of contract of a sale of a block of stock, the stock market quotations showing what might have been realized for the block at a particular time, or what stock might have been bought for at a particular time, would be relevant and important evidence in determining the rights between the vendor and purchaser, but here is where the Board advised as to all the facts in respect to the financial condition and earnings and management of the company—facts that could not be known fully to the public or those engaged in dealing in the shares, and where the purchaser is to buy the whole issue of stock, I do not myself feel that the quotations are useful at all. These quotations were quotations in 1913 made before the company had been greatly affected by its association with the Grand Trunk Pacific, and while it was receiving interest on its advances to that company. This Board is warned in the very statute under which it is acting not to take into consideration, as a means of determining the issue here, stock quotations if they are effected by the negotiations between the Government and the company. On the other hand, to go back to the quotations before the war, when so much has happened detrimental to the Grand Trunk Company since, is to resort to evidence of the most unsubstantial character.

The next basis for the claim of counsel is based on the provisions of the new transportation act of the United States. It is said that because the Esch-Cummins Act ordered the Interstate Commerce Commission to establish such rates as would return to the railway companies in the United States not less than 5½ per cent and not more than 6 per cent on the value of all the property of those companies devoted to the public service, and the relation of the Grand Trunk System to the American

Railway System is so close in that 70 per cent of its rates are affected by the rates of the United States that we must assume that the action of the Interstate Commerce Commission under the Act will bring a net return to the owners of the Grand Trunk of 6 per cent on the value of their property. On this basis counsel for the company urged the relevancy and competency of the reproduction value and actual physical value of the Grand Trunk properties. That evidence was rejected. In the absence of such evidence, I do not think there is any basis of comparison under the Transportation Act and can not follow Mr. Phippen in his argument on this head.

The third argument of Mr. Atwater and Mr. Phippen is based upon the normal net earnings of the Grand Trunk in the past and their amount having regard to the steady increase in the total business of the railway and its operating revenues.

Before taking this up in detail, I think it proper to consider the conclusion which the Chairman of the Board has reached, that on May 21, when the transfer of title to the stock probably vested, the company was bankrupt, and therefore that the shareholders, the value of whose interests in the company we are considering, had nothing then in the company which we can value. The value we have to determine is, it is true, the value of the shares in May, 1920, but their value in May, 1920, is determined not by the limited earning capacity of the company at that time if there was a reasonable prospect that within a few years its earnings will be greatly increased. I agree the injury done to the property by the war and the absolute losses thereby suffered, those interested in it, bondholders and shareholders as well, must accept as a reduction in the value of their property, but they are not to be held to an earning capaacity as of that date. They are entitled to a value then reflected by the prospect of a return to better conditions and an earning capacity within a reasonable period such that the earnings may meet not only the fixed charges but also furnish a dividend on the capital stock. We have a right to exercise our judgment as to when a normal condition of affairs will come, and on the basis of our judgment to judge the normal earnings in the future by the normal earnings in the past. More than this, if it be true that the volume of the business done by the company, and which the company is able to do, in spite of the untoward conditions, has shown a steady increase in the amount of business done, at a regular ratio we have the right to predicate an increase in the future. Normality in respect to the Grand Trunk Railway of Canada is one that can be much more safely reasoned about and acted upon than in the case of a new railroad as the Grand Trunk Pacific. We can be quite sure that if other railroads in the country are returning to a normal basis, the Grand Trunk is likely to do the same thing. To say that the Grand Trunk on the 21st of May, 1920, at the nadir of railroad prosperity in the world, when purely operating expenses were as abnormally as large as they were, was in a state of bankruptcy, and the interests of its shareholders worth nothing, is, it seems to me, to deal most inequitably with the shareholders. Who can say what would have happened to the Grand Trunk if the Government had not taken it over? Had the Government not come to the rescue, it is quite possible that the bondholders who had already come to its rescue in 1860, might have aided it again, with the confidence that by tiding over the then exigent situation, they could count on a return to the normal.

I may add with reference to the views of the Chairman of the Board as to the bankruptcy of the Grand Trunk, that they are based largely on the Drayton-Acworth report and its contents, made now more than four years ago, in 1917. That report was admitted in evidence as reflecting on the value of stock quotations and for other limited purposes, and its use as evidence by way of admission against the company, or its shareholders, was distinctly disavowed by counsel, and as I understood it, that disavowal was approved by members of the Board. This is apparent from the record from which I quote at length.

"Mr. TILLEY: The question was raised before adjourning this morning as to the admission of the Drayton-Acworth report. I suppose my friends are ready to take a stand on that.

"Mr. LAFLEUR: Of course, this report is not strictly evidence except that a certain recommendation was made by a Government Commission. At the same time I do not know that we have any serious reason for objecting to it, provided it is understood that the statements which are there made as to the company's financial standing, or as to the deferred maintenance is not binding and we are not to be considered as admitting those statements at all because we consider that that question must be decided by the evidence which has been adduced before you.

"The CHAIRMAN: No question about that.

"Mr. LAFLEUR: And we wish to be at liberty to criticize those findings if they are urged against us, and to show that those Commissioners erred in their statement of the company's liabilities, and in the statement as to the deferred maintenance, because they made no distinction between deferred maintenance and deferred improvements.

Subject to these observations, we are not strenuously opposing the introduction of this as a sort of historical document. It is a public report.

"The CHAIRMAN: There is a portion of that report, Mr. Lafleur, that struck me as not admissible. It is the evidence that is quoted of Mr. Chamberlin and said to be corroborated by Mr. Kelley. I may be wrong about it, but I would have thought that was not admissible.

"Mr. LAFLEUR: No, because we had no opportunity of cross-examining these gentlemen, it was an ex parte examination.

"The CHAIRMAN: It could have been used while Mr. Kelley was in the box by confronting him with the evidence he gave then. The question of Mr. Chamberlin's evidence raises another point.

"Mr. LAFLEUR: We are prepared to show that Mr. Chamberlin, in his answers there, was not familiar with the situation, and that he made no distinction between deferred maintenance and deferred improvements which are chargeable, respectively, to income, revenue and capital.

"Hon. Mr. TAFT: I understood that Mr. Kelley's statement had already gone in as evidence.

"Mr. TILLEY: His statement went in yesterday.

"Hon. Mr. TAFT: As an admission by the company. That is what I supposed it did.

"The CHAIRMAN: I didn't understand that. I don't remember it, and more than that his evidence is not stated in this report.

"Hon. Mr. TAFT: Mr. Butler introduced the evidence, and there was no objection to it. At least I didn't hear any.

"Hon. Mr. ATWATER: Just at the last moment last night Mr. Butler introduced Exhibit 444 which he stated to be the letters written by Mr. Kelley to Sir Henry Drayton in connection with this examination that he was making. We did not have an opportunity to object to the production of them at the time, and Mr. Butler, when he produced them said he was just giving notice that he was going to produce the letters.

"The CHAIRMAN: It is a statement made by Mr. Kelley, corroborating Mr. Chamberlin.

"Mr. LAFLEUR: In which he furnished Sir Henry Drayton with certain statements. Now, it seems to me, if my learned friends intend to rely upon that, they ought to examine Mr. Kelley as to that, because there are explanations which must be given in order to make them conform with the evidence actually before you.

"The CHAIRMAN: That is a different question from what we are discussing. That is a letter from Mr. Kelley regarding information asked for by Sir Henry Drayton. The point we are discussing now is whether the evidence stated to be given by Mr. Kelley before the Commission is admissible.

"Mr. LAFLEUR: It is annexed as an appendix to the report and, of course, I would respectfully submit that you should not consider that at all.

"The CHAIRMAN: As I recollect it, there is no evidence which is appended to the report as having been given by Mr. Kelley. There is only the statement made by Sir Henry Drayton that Mr. Kelley was sworn and corroborated.

"Mr. LAFLEUR: I am saying that you should give no consideration either to the evidence of Mr. Chamberlin in that report or to the alleged corroboration by Mr. Kelley, because you have the evidence in this case upon this question

"The CHAIRMAN: They ought to be confronted with the evidence.

"Mr. LAFLEUR: If that report simply goes in as a sort of historical record that the recommendation was made to the Government to deal with the railways in a certain way, we have no objection, but if it is intended to refer to that evidence, or to that admission, or to the findings, as binding upon us, or as evidence before you to assist you in coming to your award then we object.

"The CHAIRMAN: Of course, they were seeking to get $25,000,000 at that time, and it was up to them to give certain evidence that does not exist to-day.

"Sir THOMAS WHITE: It seems to me that what Mr. Lafleur says is sound. Evidence taken in the inquiry by the Drayton-Acworth Commission would not be evidence here. If Mr. Kelley was in the box I suppose it would be quite proper for Mr. Tilley to confront him with any statement that he made while the Drayton-Acworth inquiry was in progress, or as to Mr. Chamberlin's evidence I suppose he could be called. That is what I would think.

"Mr. LAFLEUR: Subject to those observations, if you wish to have this report in as a sort of public document we have no serious objection, but if that deposition, and these statements of the finances are to be relied on as evidence in this case then we say it is illegal and should not be admitted.

"Hon. Mr. TAFT: I do not think myself that the report is evidence.

"Mr. TILLEY: I am not tendering it in that light, but merely showing the report to be evidence of the facts stated. I am tendering it as one of the documents that has become public since the negotiations commenced about the Grand Trunk's difficulties with respect to the Grand Trunk Pacific and about the Government taking it over, and I put it forward because, in the report itself, there are certain recommendations made as to the treatment to be accorded to the Grand Trunk which it may be material for me to refer to when it comes to a summation of the case at the end, because my friends may rely on stock exchange quotations, and such like, and all these things would have a bearing, particularly under clause 20 of the agreement.

"The CHAIRMAN: Mr. Lafleur and you could agree.

"Mr. TILLEY: I think we substantially agree. The evidence of Mr. Kelley, putting it in that way, possibly is not evidence of the fact, but it is evidence to this extent, that a Commission was appointed to investigate matters, that they made certain requests to the Government, heard them and reached certain conclusions as to what they had to say with regard to their properties, and so on, but it hasn't any great bearing on the question of value.

"The letter Mr. Kelley wrote, however, is in a different category, because there he was answering specific questions and that we feel is in to stay."

But even if Mr. Chamberlain's statements are to be taken as evidence, in the nature of admissions against the shareholders, they should be given no weight to establish bankruptcy of the company then or later. The counsel for the Government

have satisfactorily shown that the statements of Mr. Chamberlin were only a part of the plan to show the Grand Trunk to be in a worse condition than it was, of which the understatement of revenues to the extent of eight millions was another part, all with a view of threatening bankruptcy in the hope of inducing the Government to relieve the Grand Trunk of the burden of the Grand Trunk Pacific. It is not just to visit responsibility for such evidence upon innocent stockholders and thereby establish against them a probable bankruptcy which their directors really did not credit and were adopting most questionable methods for an ulterior purpose, to prove. These statements of Mr. Chamberlain were made in the year 1917 immediately after the most profitable year in the history of the Grand Trunk when its surplus, after paying all its fixed charges, was $11,319,341, a sum large enough to pay the full guarantees on the Grand Trunk Pacific debentures, a dividend on the 4 per cent guaranteed stock, the dividends on the three preference stocks and leave a surplus of more than two million for extra maintenance. Instead of being in bankruptcy or near it at that time, the Grand Trunk Railway was more prosperous than ever in its history, but the directotrs were trying to conceal it. This shows how unfair it is in this proceeding to base our judgment on what Mr. Chamberlain said in 1917.

We come now to the past earnings and the probable future net earnings as the only evidence of value of this stock.

This subject requires a reference to the accounts of the Grand Trunk Railway Company of Canada. It appears without dispute that from 1912 until 1920, the London management exercised a discretion to understate operating revenues and to understate operating expenses with a view to making the published statements of the earnings and expenses of the railway different from that which a true transcript of the books would have disclosed. In doing this they made use of a so-called audit office account which they charged and credited with sums to accomplish their purpose. They directed these charges and credits by cable messages to Mr. Chamberlin and the officer in charge of accounts. Counsel for the Government ascribe variable motives to the London management for this treatment of the accounts and they are borne out by the circumstances. In 1913 the operating revenues were improperly increased apparently in order to justify the declaration of a dividend on the three series of preferred stocks, a full dividend on the first and second, and half on the third. Then came a period in which the London management was anxious to induce the Canadian Government to take the burden of the Grand Trunk Pacific off its back, on the ground that obligation to run and finance the Pacific road might lead to the bankruptcy of the Grand Trunk. That led the London management to understate their operating revenues and charge the Audit Office Fund during the years 1915, 1916 and 1917 with an aggregate of nearly eight million dollars that should have appeared as additional revenue.

In 1919 and 1920, when the sale of the road to the Government was being faced as the best course, manipulation of the accounts was directed to making the financial condition of the road seem better than it was. This dealing with accounts by the London management admits of no defence, but it cannot be permitted to prejudice the interests of the shareholders in this case. The London management in these misleading statements was attempting to induce action on the part of the Government, on the one hand, and to avoid complaint on the part of the shareholders, on the other. The local officers, except the President and those immediately charged with the matter of accounts, were not privy to this action. This is not a proceeding to penalize managers or directors of a company for false statements. We must refer to it, however, in order to understand the necessity of restating the accounts and to reach the truth as to the real earnings of the Grand Trunk Railway Company of Canada during the ten years from 1910 to 1920.

The Chairman of the Board has referred to a statement by Mr. McLaren, the auditor, in respect to the accounts as published for 1919, in which year there was a

deficit, according to the corrected accounts, of $6,488,918.75, whereas the result as published was $5,556.53. It should be added that this discrepancy arose from the fact that there was taken from the office audit account the amounts which had been withheld from operating revenues in 1916 and 1917, to the extent of more than $7,000,000, and put, with the exception of about $150,000, into maintenance of way and maintenance of equipment, and used it in the betterment of the road in 1919, but in the published account for 1919 was not shown. In other words, the fund created by the understatement of operating revenues in 1915, 1916 and 1917 was used as a reserve account for renewals and repairs of the road in 1919, but the published accounts showed neither the formation of the reserve nor its expenditure.

Another feature of the accounts which is misleading and which became quite material after 1916, was entering to the credit of the company, as if paid, interest which was not paid on advances made to the Grand Trunk Pacific and to other subsidiary companies, on advances made for the purchase of land for use in the future which was wholly unremunerative. In some cases it represented a reasonable expectation of future payment, but in other cases it was an obligation, notably in the case of the Grand Trunk Pacific Company and in the case of the Grand Trunk Pacific Branch Lines Company, entirely worthless, upon which nothing could ever be realized. The books have been revised by Mr. McLaren to eliminate the two features referred to of the audit office account, and the other overstatements and understatements, and the crediting of unpaid interest. The unpaid interest does not enter into the net operating income, but into the final surplus applicable to fixed charges and dividends.

I have attempted, in what I have had to say in this case to deal only with the accounts as revised by Mr. McLaren, the auditor, and they are, as I understand, undisputed.

From the revised accounts it appears that in the year 1910, the percentage of the operating surplus of the Grand Trunk Railway Company of Canada, after taxes, uncollectable railway revenues, hire of equipment, joint facility rents, etc., were paid, was 26 per cent of the total operating expenses. I append, in tabular form, the showing as to 1910 and the following years:—

In 1910	26 per cent
" 1911	25 "
" 1912	23 "
" 1913	19.6 "
" 1914	23.35 "
" 1915	32 "
" 1916	32.88 "
" 1917	18 "
" 1918	8.4 "
" 1919	3.16 "
" 1920	3.91 "

This table shows an average for the seven years before 1917, when the United States came into the war, of 25.97 per cent and justifies the claim of counsel that 25 per cent is a normal percentage of the net operating income of the Grand Trunk Railway. It is in accord with the normal percentage for many of the first-class railways of the country. Indeed it is in a percentage which has been recognized by the Railway Commission of Canada and other public bodies engaged in fixing rates, as a reasonable one. The reduction in the net operating income since 1918 is due to the enormous increase in the operating expenses, which have grown far more rapidly than the operating expenses, though they have increased, due both to growth of traffic and higher rates. The labour costs increased 100 per cent or more, and material in some respects quite as much. This feature was more marked after the armistice than during the war, so that under the award of railway boards, huge sums were imposed upon railways as back pay to their employees, and sometimes before any attempted compensating increase of rates had been allowed to go into effect. These were the features of the year 1920 which was so disastrous in railway

circles. Railways which had up to that time always earned a normal surplus were put in the category of those not earning even their operating expenses. This is now changing. The tendency of all wages is now downward. The Railway Board of the United States ordered a decrease in the wages of the skilled railway employees of 12 per cent and more, effective July 1st last, and the percentage in reduction of common labour has been far in excess of this, with large numbers of unemployed. So, too, has the price of all material that enters into the operation of railways been much reduced, notably the price of coal. The returns of the American railways for the months of June and July, after the order reducing wages went into effect, indicate that the turn is at hand. How rapid the return to the normal will be is of course a matter of judgment, but the changes in the returns as the official reports for June and July, are so marked as to indicate that it will be only for two or three years before the normal ratio between operating expenses and operating revenues will be restored. This grows chiefly out of the reduction in operating expenses. The operating revenues show a decline, but the difference between the operating revenues and the operating expenses is broadening toward a wholesome net operating surplus for the railways.

Having this determined from the past what is the normal operating ratio of revenues to net operating surplus, we come now to consider what we may normally expect to be the sum of the operating revenues of the Grand Trunk Railway Company of Canada. These revenues increased from $36,133,125 in 1910, to $81,442,647 in 1920. The ton miles for freight traffic increased from 3,143,687,000 to 5,028,650,000, or at the rate for the ten years of 60 per cent or 6 per cent a year. The passenger traffic in 1911 was 545,335,000 miles, and in 1920, 529,810,000 passenger miles, showing a decrease during the ten years of 2·6 per cent. In other words, the passenger traffic was about stationary, while the freight traffic increased 6 per cent. The operating revenues for 1919 were nearly $70,000,000. The operating revenues for 1920 were $81,000,000. The operating revenues for the first four months of 1921 —not a good year for business, and always the worst third of the year, because the movements for grain are in the latter part of the year—was, in round numbers, $23,500,000, from which we can properly calculate that the total revenues for 1921 are likely to reach at least $72,000,000. It is fairer to take this as the basis of our calculatiion than $81,000,000 in 1920, because the traffic that year was exceptional and the rates in 1920 were higher than the rates in 1921, which latter rates seem quite likely to continue. Beginning therefore with the basis of $72,000,000 of business, and allowing for an increase of 5 per cent a year, at the end of 1926, five years hence, we should have a total of $90,000,000. Assuming that the normal operating ratio of 25 per cent will be restored by that time, it would make the net operating surplus applicable to fixed charges, and other liabilities, and to the payment of dividends on capital stock, $22,500,000 for 1926.

We now turn to the fixed charges. The statement put in by the Government shows that the funded obligations of the Grand Trunk Railway Company of Canada, including its own direct indebtedness, the funded obligations of its stock, controlled and leased lines, which it has paid in the past when the principal debtor failed to pay, amounts after excluding the Grand Trunk Pacific guarantees, to $17,421,455.88. This includes interest on an issue of 25 millions of dollars in 1920, bearing 7 per cent interest to take up obligations incurred in meeting the deficit. It also includes the 4 per cent dividend on the guaranteed stock. The Grand Trunk Pacific guarantee by the Grand Trunk Railway of Canada should be stated in two amounts. The first is its absolute guaranty of $2,291,660. Its conditional guaranty is $1,395,000. To this should be added the cost of refunding 4, 5 and 6 per cent bonds which fall due in 1922, amounting to $297,200. The Grand Trunk and the subsidiary lines after the disastrous years of 1920, 1919, and 1918, as is shown by the unpaid vouchers needed some $18,000,000, $14,000,000 for the Grand Trunk and $4,000,000 for the

United States lines for an operating cash or working fund upon which interest due for the year 1921, amounts to $858,031 for the Grand Trunk lines and $254,122 for the other lines. Another item which Mr. Brown, the government accountant, inserted in his statement, and which appears in the budget, was for something over $5,000,000 as bank draft drawing interest. I eliminate that for the reason that as between the Grand Trunk Railway and the Government, the Government owes to the Grand Trunk something over $5,000,000, being a sum which it received as the proceeds of the Grand Trunk twenty-five million, 1920 loan, by reason of a profit on exchange which it made in paying off obligations of the Grand Trunk in London. This, therefore, I state in tabular form below, making a total of $22,467,468.88.

Funded obligations of the Grand Trunk Railway Company of Canada, including its own direct indebtedness, the funded obligations of its stock controlled, and leased lines which it has paid in the past when the primary debtor failed to pay, excepting the Grand Trunk Pacific, and including the 4 per cent guaranteed stock		$17,421,455.88
Grand Trunk Pacific absolute guaranty		2,291,660.00
Grand Trunk Pacific conditional guaranty		1,395,000.00
Refunding 4, 5 and 6 per cent bonds which fall due in 1922		297,200.00
The deficit of the Grand Trunk and the subsidiary lines during the disastrous years of 1920, 1919 and 1918, amounting to $18,000,000, upon which interest will be due in 1921, amounts to $858,031 for the Grand Trunk lines, and $254,122 for the other lines, or a total of		1,112,153.00
Total		$22,467,468.88
From this should be deducted the non-operating income which appears upon Mr. McLaren's Exhibit to be for the year 1920	$3,122,505.00	
From that, however, should be deducted for interest credited to the Grand Trunk, which was not paid	1,179,821.00	
Leaving a balance for non-operating income even in that bad year of	$1,942,648.00	
In the same year Mr. McLaren credits the Grand Trunk for surplus income of subsidiary companies even in that year	449,532.00	
		2,392,216.00
This leaves as the fixed charges to be provided for		$20,075,252.00
Deducting this from the net estimated operating income in 1926, amounting to $23,400,000, it leaves		3,324,748.00

which is enough to pay the $2,424,748 or within $150,000 of the limit fixed under the contract beyond which this Award cannot go.

I have been dealing only with the unit of the Grand Trunk Railway of Canada, and not with the lines going to make up the Grand Trunk System. They have had deficits which have been taken care of by the Grand Trunk in the past and in the statement of fixed charges given above. This is true also of the Vermont Central which is not in the System, but whose bonded indebtedness is included in the statement of funded obligations of the Grand Trunk stated above. Now these parts of the Grand Trunk System and the Vermont Cntral are bound to share in the improvement growing out of a return to a more normal relation of operating revenues to operating net income. They have in the past generally paid their fixed charges, some of them have paid dividnds, and there is no reason why they may not in a reasonably short time come to do so again. When they do meet their fixed charges, they will relieve the Grand Trunk of an annual payment of $1,312,649, as follows:—

Portland Elevator Company	$ 11,075
Grand Trunk Western Railway	655,024
Milwaukee Ferry Company	1,890
Central Vermont Railway	507,635
Rail and River Coal Company	97,025
Montreal Warehousing Company	40,000
	$1,312,649

This will give leeway for making of capital expenditures in improving the railroad system without excluding these Grand Trunk shareholders from participating in the benefit of better times.

In addition to this, the subsidiary companies belonging to the Grand Trunk, whose undistributed surpluses are credited above, may well in a period of good times increase both their dividends which would increase the non-operating income as well as their undistributed surpluses.

In stating this conclusion, I am met by the inquiry, "Assuming your estimates to be correct, what are you to do in the meantime, and how are the probable deficits to be prevented from piling up in such a way as to create permanent fixed liabilities absorbing this net operating income which you assume for the year 1926?" It should be noted in the first place that from the total fixed charges stated in tabular form in the foregoing amounting to $22,467,468.88, reduced by the non-operating income and by the surplus income of subsidiary lines to $20,075,252, there is included conditional obligations that do not aris until there are not earnings over fixed charges. They are not cumulative, and the failure to pay them would not constitute a deficit increasing the funded or unfunded indebtedness.

These are the amounts due on the guaranteed stock..	$2,433,333.33
and the conditional guaranty of the Grand Trunk Pacific of	1,395,000.00
	$3,828,333.33

Deducting this from the fixed charges of $20,075,252 leaves $16,246,918,67, as the fixed charges to be met during the interval before the net earnings are enough to pay anything on the guaranteed stock or the smaller conditional Grand Trunk Pacific guaranty. Twenty per cent net operating income on 81 millions would meet all the absolute fixed charges and this result we may anticipate within two or three years. Assuming that after the proper maintenance for the year 1922 there may be a deficit, and that deficits continue so as to make an addition to the permanent liabilities of $10,000,000, this would add $700,000 to the fixed charges which could be met as above and still leave the limit for the stockholders in 1926. The recent experiences of some American railways, as already indicated, show that this normal ratio may not be postponed for six years, but may come in considerably less time than that, and that the current deficits will have disappeared long before 1926, so that the surplus will begin to afford a part payment on capital stock.

What might have happened to this road had the Government not taken it over and adopted the policy it has of very large investment for capital betterment and extraordinary maintenance, is of course a matter of judgment for the arbitrators. Five years is not a long time in which to calculate ahead. Such calculations must be made in determining the potential values of property subject to such change as this is.

The stock upon which dividends may not be paid for five years is not as valuable as that upon which they are paid at once and this may properly reduce the amount immediately to be awarded below the value of the stock in 1926, as above stated. As I am in the minority, however, and my conclusion is not to be embodied in an award, I need not discuss how much reduction should be made for this postponement, though it ought certainly not to be more than twenty-five per cent. This would make my appraisement of all the stock, the value of which is here in issue, not less than forty-eight million dollars.

For the reasons given I must dissent from my brethren.